



TO IMPROVE THE SOIL AND THE MIND.

NEW SERIES.

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Draining on Heavy and Light Soils.

Two of the best papers which have lately appeared on the subject of draining, are the statements of JOHN JOHNSTON, of Seneca county, and THERON G. YEOMANS, of Wayne county, published in the last volume of the Transactions of the New-York State Agricultural Society, and to both of whom prizes were awarded for their successful experiments. In one case the land was a heavy or clayey, and in the other a light or gravelly loam; the former being distinguished by its adhesiveness when wet, and by its cracking when dry, and the latter by the absence of these properties. Any person who has practiced draining on soils possessing these opposite characters, must have observed the great difference in treatment required in some parts of the operation. On a heavy soil, care is particularly required to facilitate the escape of water from the soil to the drain; on a light one, to prevent the washing of the soil with the water into the channel, and causing its obstruction. After having constructed many drains on a *heavy soil*, by simply filling the lower half with stones, and covering them with straw, and then with earth, without meeting with any subsequent difficulty, we found the same process wholly unadapted to unadhesive soils, not a single season passing without the occurrence of numerous obstructions by the settling and washing of the earth among the stones. To prevent such disasters, we found it needful to cover the upper surface of the stones with very small or flat pieces, and then the whole as closely as possible with slabs from the saw-mill, of white oak, red beech, or some other durable wood, before applying the turf or straw, for the reception of the earth. We observe evidences of a similar difference, in the papers before us. J. Johnston, whose soil is heavy, fills his ditch at intervals with stones, which rise above the surface, wherever it is desirable to admit large quantities of surface water, and through which it passes freely down into the tiles below. On light soils as they usually occur, these structures would be choked in a single season. On the other hand, T. G. Yeomans, who occupies a light soil, found, as others have done, that ordinary stone underdrains were liable to become stopped, both from the washing of the earth, and the digging of rats, mice, and meadow moles; he also found even the horse-shoe tiles objectionable, from their liability to become filled by the washing of the earth beneath them, and *tubular* tiles the only kind that proved to be secure from these accidents.

J. Johnston gives some striking examples of the

success of his experiments, which has led him to construct at different times, *sixteen miles* of underdrain, or as we have learned since his paper was written, *twenty miles* up to the present time. Six acres, (in a twenty acre field,) so wet as seldom to give a remunerating crop, even of grass, were drained, and the whole field plowed and planted with corn. The drained portion soon showed a marked superiority in the crop, the whole field yielding at the rate of *eighty-three* bushels per acre,—one of the largest crops, if not the most so, ever known in the county. The field attracted much attention, and parties in examination walked easily over the six acres, while all undrained land was muddy. Subsequent crops showed so decidedly the profits of draining on this field, that the whole was subsequently subjected to the operation; and of the very large growth of clover resulting from it, "not one square foot froze out," and good crops of any thing sown or planted, can now be relied on. Another field of partly low land, "saturated with water," was drained, and the first crop in an unfavorable season, was 40 bushels of shelled corn per acre, on land where nothing but coarse grass had grown for twenty years before. A crop of wheat, "a heavier" says he, "I never saw stand up," was reaped from this ground, but it had not been measured when the paper was written. He draws his tile three miles from the factory, and finds underdraining to cost him about 30 cents a rod, and at about two rods distance asunder, \$22 to \$24 per acre, which is usually repaid in two crops, and in some instances more than repaid by a single crop.*

T. G. Yeomans, who has constructed *nine miles* of tile drain, finds nearly an equal advantage on his light loam,—land generally "thought to be quite dry enough." The large amount of water discharged, in one instance, at the roadside, from his tiles laid in this reputedly dry soil, furnished a practical illustration of the need of draining, to those who observed it, stronger "than all books ever written on the subject, valuable as they may be." On this land the ground becomes dry two or three days after the frost passes out, or after a heavy rain, permitting it to be worked at almost any time—drying uniformly, so that all works alike. A young orchard was nearly destroyed by winter on undrained land; but after draining, the trees were replaced and succeeded perfectly. He brings his tile from Waterloo and Albany, the nearest 30 miles; and finds the drains to cost him, when completed, 40 cents per rod, and at about three rods apart, \$25 per acre.

* A long whipple-tree, permitting a horse to walk on each side of the ditch, enables him to fill it rapidly by plowing in the earth.

We have given but a meagre outline of these valuable papers—those who wish to understand the details of the process, with many other interesting particulars, are referred to the Transactions of the New-York State Agricultural Society for 1851.

Agricultural Fairs.

The importance and usefulness of Agricultural Fairs has not been over rated. They have done more than any other one means to awaken the desire for improvement, to arouse the ambition to excel, and to furnish tangible evidence that superior culture will produce superior products. From small beginnings, these farmers' festivals have extended themselves over a great part of our land, and every year vies with its predecessor in the beauty, excellence, and variety of its exhibitions. This is well; but ambition should not stop here. The farmer, the gardener, the breeder, should carry home with him something more than his diploma and premium. He should acquire, in his experience, the power to carry his improvements to a still higher degree of perfection. The mere repetition of the same scene, under slightly varying circumstances, will soon tire. New elements must mingle in the rivalry of every competition, fresh energy must be brought to every recent discovery and improvement, or we tread in the same beaten circle.

All the experimenting, thus far, on the different modes of culture, on the soils best adapted to certain crops, on the manures most efficacious on different soils, and when applied to different crops, has not demonstrated one generally admitted and safe conclusion. Our farmers consent to assemble year after year, bringing with them the same implements, the same stock, the same articles of manufacture, and having received the accustomed premium, they go home well satisfied with their progress.

The failure to derive any lasting good from such exhibitions is directly chargeable on the farmers themselves. Careful reports have been made of the proceedings of each Agricultural Society, which are accessible to the mass of farmers, agricultural papers keep their subscribers informed of all the improvements and discoveries in culture, and each farmer must systematize the facts for himself, and draw his own conclusions as to what is adapted to his wants.

There is no such thing as avoiding the labor necessary to arrange the experience of others, so as to appropriate it to individual use. Eminence in farming, as in all other pursuits, must be the result of personal observation and study; and the compilation of facts, however valuable, by an editor, will not make amends for the want of such personal effort as we speak of. Scientific men will do their part faithfully and well—editors will use their best exertions to arouse public interest and properly direct it, but "each man must build over against his own house." The golden age of farming will never come till each agriculturist goes thoughtfully about his own work, investigates and decides for himself his own matters of economy. Universal intelligence is the *sine qua non* of universal success, and when it comes to be considered as important for a farmer to be educated to his profession, in order to live by it, as it is in other callings, then, and

not till then, will the progress of Agriculture be certain and constant.

We venture to say that hundreds of farmers take an Agricultural paper, who do not derive from it the slightest advantage, merely because they do not classify and digest what they read. So, many who attend an Agricultural Fair, gratify only their curiosity for sight-seeing—admire, it may be, what is pleasing or novel; but never think that their main business should be to inquire into the means which have been used in the production of premium articles, the manner in which the fine cattle are bred, and the advantage of employing improved implements in their farm labor. Too many look with an envious spirit upon all that is better than their own, deride what is inferior, and go home to plod on. This state of things may be incident to the comparatively recent origin of fairs in many parts of the country; still, we think there is an error here which needs correcting.

We are led to notice another prevalent evil among the agricultural community, and that is a want of organization among farmers for promoting their own interests. They are not recognisable as a class, save at State and County Fairs; they claim no rights, assert no privileges, demand no exemption, but suffer in silence, or spend their strength in fruitless complainings. In other occupations men club together to maintain the position of their craft; they call for the protection of their interests, and they find means to secure their ends. Mechanic's institutes are very common in our large manufacturing towns. Young men are taught by their daily experience and observation, that superior education and industry are necessary to success in their trade, and many a penniless apprentice has risen to eminence by his own exertions, aided by a library, and whatever other means were in his power. On the contrary, the leading question with our farmers too often is, how shall I get independent of my calling? how can I avoid the drudgery and toil of it? and not how shall I improve my farm the most, and make farming the most honorable and delightful of pursuits? We want to see a universal consolidation of the masses for self-improvement, and the rights and well-being of farmers, made foremost in our national councils, as they are the most deeply connected with national prosperity. When the united voice of the farmers of this republic comes up in one cry, they must and will be heard.

When they come to feel the truth of the remark which politicians love to weave into their honied speeches, that the "bone and sinew" of the nation's strength lies in them, then will they not sit in sackcloth and ashes at the gate of legislative assemblies, but go manfully in and take the rights which have been too long entrusted to those who neither sow nor reap, nor gather into barns, but eat the fruits of other's labors. There should be in every town a "Farmer's Club," not consisting merely of a few of the more wealthy, but of the entire body of farmers. This club should own a library of Agriculture, consisting not only of the more popular class of agricultural publications, but also of all the foreign standard works on this subject. In this way a vast amount of instruction and information might be derived, and the expense, when divided among a large number of farmers would not be very considerable. This club

should hold frequent meetings, in which discussions on various topics, the communication of individual experience, and the results of private reading, should form the distinctive feature.

The approaching winter season will be a favorable time for the forming of such clubs, and if we mistake not, such organizations will effect, more speedily than any other means, a union of agriculturists and the promotion of their interests.

Sheep and Fleeces.

A correspondent of the *Wool Grower*, (W. D. Dickinson, Victor,) gives it as his opinion that the waste by washing is much greater than people are generally aware of. He sheared a two year Saxon ram without washing, and found after weighing and washing in cold water, that the fleece had lost 52 per cent. When washed with soap the waste was 44 per cent—nearly three-fourths on the whole. The sheep ran in winter in a well littered yard, and in summer in clean pastures.

Another correspondent, (Geo. Campbell, Vt.,) states that the live weight of his French Merino buck "Matchless," is 260 lbs.; his fleece, one year's growth, was 20 lbs. 12 oz., after losing a portion of it on the sea voyage. The present season, with ten months growth, and only ordinary keeping, it was 18½ lbs. The average weight of 60 ewes of this breed, did not much exceed 100 lbs. The average weight of fleece was 12½ lbs. "This season the ewes were thoroughly washed, and after suckling lambs through the winter, sheared only a fraction short of 6½ lbs."

A Michigan correspondent of the same paper, in showing the difference between good and bad breeds, says, "We once kept a sheep that clipped just *fifteen ounces a year*, never more, and sometimes less,—it was a very hearty feeder. On the contrary, we have taken from five to sixteen pounds of wool from some of our best Merinos, and have yet to discover that they consume more than the one alluded to."

Sewing Machines.

The Scientific American states that since its first notice of the invention of the sewing machine of E. B. Howe, of Cambridge, Mass., that paper has described seven different sewing machines. Among them, is the machine of A. B. Wilson, which he has since brought to great perfection, and has obtained two American patents, and has made arrangements to get it patented in the principal kingdoms of Europe. The Scientific American says, "Wilson's Machine, is, in our opinion, a great triumph of American genius. It is no larger than a neat small work-box, very portable and convenient, and we have seen fine shirt-bosoms and collars stitched by it in a more perfect manner than we have ever seen done by hand work. There are now, we believe, about 500 machines in operation, and orders exceed the supply."

The sewing machine is but on the threshold of its career; it is but partially known and applied in this country. Private families know nothing about its use, and shoemakers and saddlers have not yet tasted its benefits. Mr. Wilson informs us that he is about to make one that will sew boots and shoes with a rapidity that will astonish

all the sons of St. Crispin." Any invention that shall abridge these tedious labors, will ultimately prove of great benefit to all parties concerned—for whatever lessens the aggregate labor performed by a whole community, soon results in the advantage of every member of that community. One of Wilson's machines will enable a woman to make a fine shirt with all its seams, in one hour.

Can Money be Made by Farming?

EDS. CULTIVATOR—I have been a subscriber to your valuable monthly for two years, and have attentively read all the previous volumes. As my researches have not resulted in the conviction that farming pursuits, however desirable in other respects, are sure to be profitable as a business, I am led to suppose that the difficulty must be either in myself, or a certain unwillingness on the side of editors to promptly give the whole truth. For instance—Why is it so notorious, that men universally pronounce farming occupations to cost more than its results amount to, weighed in the balance of debt and credit? It certainly looks as if there was some ground for such a judgment. Agricultural papers are always putting in the fore ground, the delightful advantages of country life, the pleasures of farming. But where is the working farmer, retired merchant, sea captain, or amateur, who can give us the real truth, covering the results of five or ten years? You will hear a theorist charm his audience with the prettiest systems of rotation imaginable, and the talented chemist crying over the dreadful waste of organic and other manures by large cities; and what does it all amount to? Does he farm it? What responsibility dare he assume, who urges his fellow man to invest his capital in what he dare not himself? The truth is, I am yet to see, in any modern work, an authentic record of any man's farm for a course of years, in this country, stating that it has or has not paid him, a reasonable family expense, and left him square at the end of the year—unless he happens to be one of your *grubbing, anti-book-farming* characters, who do all their *own work, don't educate their children*, and live with scarcely any of the comforts of life—thinking that money is all and all, and nothing else is worth possessing.

Now I want you to frankly tell me, if I can, by a judicious expenditure of capital, with a market not far distant, bring ordinary land to a condition that will enable me to support my family comfortably?

You perceive I propose an earnest investigation, and my reason for it is, fairly to know, from creditable sources, whether I am justified in freely investing money on my 40 acres of land, with any prospect before me that the returns will, after five years, compensate me for the extra outlay.

Once more, is it not true that all farming journals are united in representing that the prejudices against farming among the crowds of young men who throng the marts of commerce, is occasioned by a distaste of labor, or its slow returns, or by reason of caste; and do you not endeavor to convince them that these impressions are wrong? Indeed, do you not often try to convince them that although they will not become rich quite as fast by farming as by successful trade, yet that they are sure

of freedom from wasting excitement, and may enjoy what is worth more than large returns accompanied by sleepless nights. This is all very plausible, but the misfortune is, that they don't think as you represent. I can speak for 10,000 young men now in New-York, who are compelled to struggle onward in the almost hopeless race for competence, who would cut loose from such confinement, could they have the evidence before their eyes, that with a small capital, competence is attainable on a well cultivated farm.

I heard it remarked by an intelligent man of Massachusetts, before a county audience, that were all the farmers in the state to sell off their farms, and invest the proceeds in bonds and mortgages, &c., they would be much better off. Now will you be kind enough to inform your many readers the names of ten intelligent farmers in our state, who realize a competence from their respective farms—whose business for a series of years can be pronounced profitable? I fear it cannot be done. I hold it decidedly wrong for a retired merchant to live without occupation, and inasmuch as I have chosen, from a long cherished preference, a country residence, I must cordially acknowledge that I am possessed with the common feeling of my fellow men, and find it hard to swallow a yearly loss, after the pains, labor, and expense of producing crops, and getting for an equivalent the only satisfaction of knowing that I could support my family cheaper in town, and have less trouble.

Don't think me impertinent, or wishing to cast any discredit on you or your compeers of the press, but I am desirous of being encouraged, if in your power consistently so to do, and will persevere if I can see a fair prospect of success in the future. MERCUTIO.

REMARKS—The gist of the above anonymous communication, is comprised in the question, whether the person who wrote it can support his "family comfortably" from 40 acres of land? How does he suppose it possible that such a question can be answered from the data he gives? We know nothing about the land, its capabilities of production, or the value of its produce. We do not even know where it is situated. He tells us there is "a market not far distant," but we have no information as to what market is meant, the prices of agricultural and horticultural articles, or what could be raised from the land to the best advantage. He is just as indefinite in regard to the amount of income he requires from his 40 acres. He wants to support his "family comfortably;" but how do we know what his family is, or what expenditure of money would keep an indefinite number of people in that indefinite state called "comfortable?" Upon the whole, he has given us as a *poser*—we acknowledge the proposition is too hard for us to solve.

As to the general question of the profits of farming, it is easily answered. Take the whole farming interest of the country. Does it lose or gain? Obviously gains. What but agriculture supports four-fifths of our population? In our own state, we have many sections where agriculture constitutes the only resource of the inhabitants. Is our friend so ignorant as to suppose that there has been no increase in wealth in these districts for "a series of years?"

As to the remark charged to "an intelligent man of

Massachusetts," that all the farmers in that state would do better to sell out and invest their money in bonds and mortgages, we think there might be some question as to his "intelligence." As to the names of "ten intelligent farmers in our state," who make farming profitable, we do not wish to make an invidious array of names, but if our correspondent will give us his own name and residence, we will send him the names of *one hundred* men who, for "a series of years," have made money by farming, and who will be ready to show the way it was done. In the mean time we would refer our friend to our volume for 1847, pp. 180, 205, 265; for 1848, pp. 169, 192, 297; for 1851, pp. 35, 38, 397. Eds.

Agricultural Resources of the Great West.

THE REARING AND FEEDING OF HORNED CATTLE.—Next to wheat, and corn, the rearing and feeding of neat cattle, on the western prairies, may take rank in point of importance. Some locations are of course much better adapted for stock than others, and the same applies to all branches of agriculture; but the undeveloped agricultural resources are comparatively so boundless throughout the entire states and territories forming the upper Mississippi valley, that a person desirous of engaging extensively in any department of agriculture, will find no difficulty in selecting an appropriate location. To an eastern grazier and feeder, the prairies could not be otherwise than fascinating; and the facilities for the business are such that it may be extended to any given extent, without exhausting the summer range for cattle. The sleek and fat appearance of cattle, that are fed upon the prairies, is good evidence of the fattening properties of the herbage; and where cattle are well wintered they may be fattened fit for market on the natural grasses, without the aid of grain.

The extent of the prairies bordering the large streams can only be estimated by the length of the rivers or streams along which they stretch. A very common size is from ten to fifteen miles in width, and from thirty to fifty miles in length. A long the edge of those prairies, or skirting the timber (the latter being confined entirely to the streams,) the settlements of the country are mainly located, leaving the range for stock in the centre of the prairie, which of course is occupied free, to all who choose to allow their cattle to graze upon them. Tens of thousands of acres of high rolling pastures, are thus allowed to remain in commons, owned principally by eastern capitalists, at points near the main thoroughfares, and even in many cases contiguous to populous towns and cities. These cattle ranges are admirably adapted for the growth of corn, and all the variety of grains, and cultivated grasses; and where necessity requires it, corn and root crops, may be grown at a nominal cost, to be fed upon the ground, to finish the fattening process for market. Prior to the California emigration, stock cattle for feeding could be bought at one half the prices asked in Ohio; but the outfit for the overland route being made almost exclusively along the upper Mississippi and her tributaries, tens of thousands of oxen, steers, and cows, have been bought up at nearly eastern prices, thus changing materially the market value of stock cattle for feeding. The inexhaustible capacity of the country for the

business of rearing stock, is such that the supply in future years will keep pace with the demand; and the business of feeding for market may fairly be considered yet in its infancy. The high eulogies that may in fairness be lavished upon the Sciota valley, as a region adapted for the grazier and stall feeder, of neat cattle, may with equal if not greater propriety be given to the entire states and territories forming what may be aptly styled the valley of the upper Mississippi river. If the Sciota country can annually send her tens of thousands of sleek and well proportioned fat bullocks to the New-York markets, Illinois and Iowa may with much less difficulty send their hundreds of thousands to our eastern sea board. The undeveloped resources of these states, to say nothing of Missouri, Minnesota, and Wisconsin, for the fattening of cattle alone, are sufficient to employ an active capital of many millions of dollars, and a well organized force of laborers equal to the entire adult male population of those states. To form some idea of the possibility of exhausting the natural capacity of the country for the cattle business, the extent of the undisposed public domain, and the extreme fertility of the soil are only necessary to be carefully computed; and then to this may be added about an equal amount of unenclosed lands in the hands of speculators.

So soon as the railroads now in course of construction, extending westward from the principal Atlantic cities, shall be completed to the Great Father of waters, which in the course of three or four more years will be consummated at three different points, then the entire order of things will be changed so far as feeding cattle on the prairies for the eastern markets is concerned. A new life will be imparted, not only to the business of rearing and feeding cattle, but to all departments of agriculture, so soon as the Atlantic and Mississippi shall be bound together by the iron rail. These roads running, as they will do, in parallel lines across the most fertile portions of the vast fertile planes of the west, at intervals of from fifty to sixty miles, making, as they will do before the lapse of ten years, some six independent and rival roads, will have an almost magical influence in bringing into favorable notice to travellers and others, the unsurpassed undeveloped and neglected resources of the Great West.

The winters, though as severe as in the same latitude on the Atlantic coast, are on the whole much more favorable for wintering stock, owing to the absence of snow during, in many cases, the entire season; but the best winter ranges are found skirting the streams among the sound growth of timber, where the grass continues green later in the season, and makes its appearance earlier in the spring; and the timber forms an excellent protection to stock, from the cold and raking north winds that are so characteristic to the western prairies during winters. Other departments of this subject will, on some future occasion be critically discussed. W. G. EDMUNDSON.
Keokuk, Iowa.

Drilling Wheat.

Edward Stabler, in his admirable essay on the advantages of drill seeding, states that after examining its results on some 800 or 1,000 acres, besides large experience on his own land, he finds there is not a single instance

where it has not proved the most profitable, first, in the saving of seed, and secondly in the increased product of the grain, amounting to from one to six or seven bushels per acre. He thinks five pecks of seed drilled are equal to two bushels sown broadcast. He has known the increase, in one case, by careful comparison of the two modes, to amount to nine bushels per acre in favor of drilling. He relates an interesting incident:—A vender offered a drill for the increase in a crop of fifty acres of wheat—to be determined by sowing a few strips broadcast for comparison. But before harvest the farmer preferred paying the hundred dollars, the price of the drill, with interest. On carefully ascertaining the increase, he found it to be one hundred and fifty-three bushels.

Agriculture, Unscientific and Scientific.

EDS. CULTIVATOR—From all quarters comes the cry, we want a systematic theory of agriculture. One says my land is becoming poor, how shall I enrich it? Another, my crops are diseased, how shall I prevent it? Another cries, insects devour the fatness of the land, how shall I destroy them? From all our borders comes up the cry, "come over and help us"—voice answers to voice, and hill-side and forest bring back the echoes in the length and breadth of our land.

Aye! aye! sir, shouts some erudite seer, I have a panacea for all your ills. Pay for an analysis of your soil, and follow my directions, and you may supply all the elements of fertility to your impoverished soil. The sample of soil and the ten dollars being received, the answer comes back in a chemical formula, which the farmer must get translated before he understands it, and perhaps get corrected before it is right. So many equivalents of ammonia are to be retained, so much phosphate of lime is to be applied, so much carbonate of potash must be combined, the soil must be yearly analysed to ascertain what constituent is wanting; all this being done, you have the essentials of successful farming. And this we are to understand is *scientific* agriculture.

One complaining of blighted crops is told that he must underdrain his land and use a sub-soil plow, and his land will grow richer day by day, and his grain escape all maladies. Nothing more is necessary to ensure the improvement and fertility of a farm. This too is *scientific* agriculture.

To one who wishes to know how best to preserve manure and how to apply it, the answer is returned that animal and vegetable manure is of little consequence compared with mineral fertilizers—that barn-yard manure is old-fashioned and behind the age—that the bases of all soils are mineral substances, and that as these become exhausted by cropping, the soil grows weak and worthless, and that these mineral components must be restored to bring the land into heart again. This too is *scientific* agriculture.

Others studiously avoid adopting any particular theory and write grandiloquent, non-committal articles on the sublime results which the future of *scientific* agriculture will open up. This high sounding method of enlightening public sentiment has many and zealous supporters. Professors suddenly spring into grey hairs and wisdom, and would-be agricultural literati become as thick as

grasshoppers. Agricultural periodicals expound their favorite hobbies to their credulous and admiring subscribers, puff their respective restoratives for exhausted and diseased nature after the fashion of quack medicines, and every now and then publish the astounding results which have attended their labors.

We might make pages of extracts from agricultural publications, to prove all we have said, and much more, but it is not our purpose to find fault with those who choose to pursue a different course from the one we deem best. Still we firmly believe that although much that is said and written in the aforementioned style is true, it is designed to do great mischief and to effect incalculable harm.

- Very many necessarily derive their notions of improved farming from such ultra writing, and failing to realise all that is advertised, are out of all conceit of book farming. They condemn the teachings of really scientific men, because empirics or wanton cheats palm off their vagabond theories for reliable truth. Not long since, at an Agricultural Fair, we listened to a tirade of abuse directed against all those who undertake to teach the principles of successful agriculture, without a practical knowledge of the details of farm labor. Farmers were told to rely upon their own observation, to let books and theories alone, and be content to learn wisdom in the way that nature designed every man should—by patient toil. That man had been prejudiced against his own interest by partial, extreme, and false representations, made by these self-constituted apostles of Agricultural Science. Nor is this a solitary instance. There are thousands of farmers who would gladly adopt any means of improvement, were they assured that they would not be victimised by some humbug or other. As a class, farmers pride themselves on their intelligence, and their ability to detect a cheat, and having once been deceived, they resolve never to trust again. For this reason, if for no other, those who undertake to direct public opinion, and advance the cause of agriculture, should weigh well what they publish, and see to it that they do not retard, rather than help on the interests of the agricultural community.

The fault more often lies in ignorance—a wrong use of terms, and a confusion of thought, than in any intention to deceive. It grows out of an ambition to do more than means are provided for doing—to know more than it is possible to know, and to be wiser than the age.

We would not be understood to condemn the utility of calling in chemistry to the aid of Agriculture—to under-value any improvements of the day, or to censure without reason. Chemistry has already done much for agriculture, and in the hands of chemists may do much more; but that chemistry is the “philosopher’s stone” of agricultural progress, we do not believe, or that chemistry and scientific agriculture are synonymous terms. The principles of vegetable growth cannot conflict with the laws of chemistry; for all nature is in perfect harmony with itself. No patent invention can supercede the immutable course of nature, or stimulate our soils to lasting productiveness, any more than the intoxicating cup can make the mind more healthy and vigorous. Seed time and harvest came in their appointed time, before

LIEBIG and JOHNSTON and NORTON, brought in their treasures of science to the aid of Agriculture, and now that MAPES has so far outstripped all competitors in the march of *scientific* progress, no great change has come over the spirit of the farmers’ dreams. Chemists may amuse themselves with their theories, and shed ink like water in defence of their favorite hypotheses—speculators may concoct splendid projects for the amelioration of labor, and reap golden harvests as the reward of their impudence—but the silent, powerful, undercurrent of agricultural and national prosperity moves in an altogether different channel. Wherever a thoughtful, prudent farmer is earning his bread, wherever a resolute, laborious man is observing the constitution and course of nature, wherever economy and common sense are exercised, there is the work of improvement going on—there is agriculture really becoming *scientific*.

“Science is knowledge reduced to a system,” and just so fast and so far as the principles of vegetation, the proper use and application of manures, the laws of farm husbandry and economy, the preparation and treatment of soils to adapt them to particular crops, and in short the whole routine of farm labor becomes systematised and conducted upon rational principles, does the practice of agriculture become a *science*. We protest against the use of the term *scientific* as applied solely to Agricultural Chemistry. We claim that it has a wider and a more universal meaning, and that farmers are wronged by the exclusive and partial views so often made public on this subject. We hear too much about the laboratory and too little about the farm—too much about analysis and too little about the diligent hand that maketh rich—too much about science and too little about practice—too much about what *may be* and too little about what *is*. If our agricultural papers would give us more facts and less speculation, draw more of their matter from experience and less from imagination, devote their energies more to the universal spread of information, and less to the private interests of particular men, we should have a press on which we could rely, and to which we could turn as the fountain head of streams to water and fertilize our land.

I do not find fault with The Cultivator, as I think it has generally pursued a consistent and intelligent course; but when one reads some articles which are published on agriculture, and that too from those who profess to lead public sentiment, no well wisher to *scientific* agriculture and the improvement of our rural population can hold his peace. Give us stirring articles on subjects of general interest, but let them have common sense for a sub-stratum,—portray in as glowing language as you please the claims of improved culture, but let conclusions be based on principles and facts, and thus will “book farming” and the teachings of agricultural periodicals take strong hold of the minds of farmers, and work out the proper results of really *scientific* agriculture. CULTOR.

GOOD AND BAD FARMS.—A ten acre field, costing fifty dollars per acre, and ditched, manured and improved, at fifty dollars more, so as to give double crops, is much more valuable and profitable, than twenty acres unimproved, costing the same money.

Agricultural Statistics of the State of New-York.

(Compiled from the United States Census for 1850,—for the N. Y. Tribune.)

Counties.	Acres of land.		Value of farms.	Value of farm tools.	Horses.	Asses and Mules.	Milch Cows.	Oxen.	Other cattle.	Sheep.	Swine.	Value of live stock.
	Improved.	Unimp'd.										
Albany,	228,505	68,877	\$11,339,756	\$470,878	8,587	4	12,155	2,496	7,723	37,558	25,285	\$1,171,553
Allegany, ...	191,969	186,320	5,540,150	361,897	7,054	33	14,926	3,099	19,682	103,219	11,453	1,294,858
Broome,	158,392	131,070	5,586,307	197,030	4,232	5	12,131	3,772	11,145	30,650	8,393	852,565
Cattaraugus, ..	206,850	261,859	6,216,993	359,333	7,387	3	19,949	4,843	26,560	71,638	12,585	1,339,081
Cayuga,	298,633	99,863	15,086,322	541,770	12,503	9	18,113	3,428	19,905	122,416	28,769	1,861,844
Chautauque, ...	310,733	281,531	10,836,732	374,653	10,231	2	32,382	6,055	34,083	137,453	17,663	2,114,932
Chemung, ...	124,715	108,557	6,352,356	251,873	4,805	4	10,016	2,278	7,552	22,597	12,051	780,390
Chenango, ...	332,909	169,082	9,555,847	436,600	8,757	4	30,873	5,223	22,002	88,811	16,282	1,831,980
Clinton,	133,578	102,504	4,256,119	198,170	5,717	4	5,816	1,475	7,594	31,725	9,179	772,259
Columbia,	297,483	62,066	15,684,408	492,516	7,901	10	13,583	3,921	10,336	103,532	38,278	1,507,279
Cortland, ...	165,447	95,312	5,405,517	351,481	5,721	7	20,020	2,610	14,052	38,060	10,211	1,227,235
Delaware, ...	352,941	291,693	8,583,681	439,623	8,231	....	34,493	6,351	22,611	65,196	17,302	1,948,026
Dutchess,	378,506	96,620	25,181,302	758,895	8,861	16	18,023	6,620	18,129	96,330	49,757	2,358,603
Erie,	270,871	191,382	12,441,745	515,303	11,916	10	25,172	4,117	17,893	66,318	20,240	1,627,240
Essex,	166,951	136,610	3,393,385	182,446	4,365	12	6,747	2,085	8,808	50,206	5,796	677,718
Franklin, ...	103,203	61,146	2,298,912	159,578	3,650	4	6,971	1,945	8,576	27,136	5,222	502,589
Fulton,	117,413	47,122	3,465,299	199,085	3,717	7	7,416	1,124	5,803	13,481	8,239	596,807
Genesee,	203,871	69,708	10,505,332	433,480	9,685	5	8,908	2,157	10,857	116,829	18,710	1,245,431
Greene,	207,523	106,895	7,943,072	344,550	5,844	6	11,919	2,933	11,026	22,280	16,515	1,000,540
Hamilton, ...	13,845	23,687	220,777	14,614	280	....	780	385	872	1,647	316	58,570
Herkimer, ...	245,648	91,534	10,491,314	411,570	7,650	....	35,978	1,671	10,982	15,794	15,073	1,357,348
Jefferson, ...	418,540	179,799	13,986,823	679,293	15,406	1	45,186	3,436	29,370	60,330	27,873	2,515,100
Kings,	17,419	3,443	4,130,700	90,460	3,304	127	2,791	85	627	20	5,336	317,672
Lewis,	137,822	95,229	5,289,486	357,455	4,307	2	21,045	2,648	8,615	15,368	9,041	972,928
Livingston, ...	229,762	86,938	14,018,338	360,978	9,934	23	9,033	2,526	13,297	146,846	18,825	1,313,792
Madison,	363,392	93,203	10,829,523	388,555	9,900	4	22,468	2,841	17,309	95,308	16,527	1,701,463
Monroe, ...	302,102	84,394	19,617,316	782,833	13,576	1	14,201	3,230	14,938	112,297	31,207	1,845,236
Montgomery	192,260	46,868	8,689,704	367,092	7,202	4	13,766	1,399	9,903	13,379	13,128	1,074,253
New-York, ...	2,428	215	4,937,000	39,131	7,773	6	2,288	38	48	11	3,802	608,857
Niagara, ...	178,664	102,128	6,700,836	409,995	9,510	....	9,832	2,713	11,646	59,093	20,504	1,088,304
Oneida,	476,609	199,572	15,930,355	527,350	14,683	12	47,959	4,112	21,482	70,341	26,793	2,620,190
Onondaga, ...	317,280	113,291	17,055,334	804,010	13,987	....	21,203	3,150	22,008	112,990	31,018	2,086,058
Ontario,	274,381	90,906	15,066,953	566,473	10,313	6	11,253	3,138	13,760	149,554	20,147	1,529,572
Orange,	315,795	107,903	17,585,393	451,823	8,262	15	38,938	12,376	13,197	23,562	42,051	1,953,692
Orleans,	163,823	53,631	8,916,810	338,405	7,530	....	7,026	2,055	7,717	58,791	11,135	925,324
Oswego,	193,283	170,060	8,037,526	425,515	8,750	10	21,112	3,512	16,368	35,370	16,621	1,196,493
Otsego,	376,868	171,204	12,560,142	592,863	12,210	....	29,958	3,431	24,959	108,244	26,184	2,148,130
Putnam,	85,501	35,344	4,820,700	141,774	1,598	3	6,900	1,920	4,131	4,503	10,304	536,623
Queens,	123,360	46,286	12,373,722	424,541	5,846	97	7,780	1,708	4,255	12,474	18,160	851,576
Rensselaer, ...	274,543	75,203	13,568,429	539,570	8,504	....	16,174	3,265	9,944	85,578	27,739	1,524,503
Richmond, ...	10,311	4,863	1,620,360	46,480	4,439	13	747	371	682	71	1,327	81,215
Rockland, ...	43,680	34,323	3,269,780	67,952	1,546	139	2,938	495	1,132	999	3,010	239,309
St. Lawrence, ..	377,086	202,627	9,242,518	657,505	13,811	....	33,365	6,555	31,441	89,910	18,423	2,141,176
Saratoga, ...	221,427	131,562	13,200,759	517,323	9,624	18	15,456	3,040	15,128	56,769	28,198	1,429,972
Schenectady, ...	76,939	28,892	3,820,430	193,943	3,225	2	5,348	1,801	3,550	12,285	6,560	470,110
Schoharie, ...	205,745	105,444	7,347,157	337,615	6,995	....	16,055	2,284	11,548	31,340	17,820	1,242,071
Seneca,	427,937	39,541	8,563,490	254,265	5,754	....	5,993	983	6,711	34,599	11,201	1,377,558
Steuben,	336,981	338,415	13,581,268	676,792	12,744	4	21,584	6,744	27,162	156,776	23,939	2,155,000
Suffolk,	143,612	210,292	7,195,800	211,147	5,765	214	9,292	1,770	9,994	31,419	14,545	804,957
Sullivan, ...	94,425	141,830	3,513,001	167,109	2,631	45	7,626	3,408	6,711	10,829	6,455	656,943
Tioga,	118,240	103,111	4,852,976	173,890	3,863	....	8,893	2,373	9,209	26,895	8,111	614,357
Tompkins, ...	223,213	104,284	10,382,945	403,349	8,923	7	14,993	2,739	15,569	89,631	14,535	1,409,914
Ulster,	233,059	207,938	12,438,204	492,407	8,551	36	18,673	4,877	10,389	25,387	36,292	1,188,947
Warren,	95,480	126,359	1,965,312	105,222	2,724	....	5,202	1,682	6,554	18,463	5,264	418,557
Washington, ...	299,802	102,242	11,958,955	513,796	9,394	....	16,652	2,217	18,388	152,337	28,375	1,673,515
Wayne,	233,603	97,857	11,837,903	572,695	12,127	7	11,037	2,432	16,309	81,279	20,702	1,536,390
Westchester	196,701	55,228	19,522,743	416,047	5,189	8	17,572	5,349	5,674	11,001	23,355	1,326,909
Wyoming, ...	223,533	126,747	8,071,348	394,610	8,725	4	15,022	3,850	18,211	133,116	15,634	1,357,222
Yates,	133,971	52,529	7,578,553	196,180	5,506	10	6,452	1,258	7,370	62,297	11,762	796,790
Total,	12,408,998	6,710,120	\$554,546,642	\$22,081,926	447,014	963	931,324	178,909	767,406	3,453,241	1,018,252	\$73,576,499

Red-legged Locust.

Insects which have been familiar to our senses since the days of our childhood, and which invariably present themselves to our sight, as the season of summer advances into that of autumn, are generally looked upon with almost perfect indifference, in consequence of this very familiarity; few individuals, reflecting for a single moment on the purposes of their existence, or are induced to bestow a solitary thought upon the benefits, or injuries they may be capable of producing in the comforts or luxuries, appertaining to our household economy. This seems to be peculiarly the case with the species, whose depredations are here to be noticed, merely on account of its proving to be one of our social little grasshoppers, insects which are at all times to be met with in our customary walks through the field, and gardens attached to our dwellings. The species alluded to, is the *Acridium*

femur-rubrum, the red legged grasshopper, or more properly, locust. In the present season, in some of the northern counties of our state, and likewise in the states adjoining, this insect has been uncommonly numerous, most generally along the borders of our lakes and the shores of the various streams that ramify in every direction through the country. They have appeared in such multitudes, that the light of the sun could but at intervals be seen, from such positions on the earth over which they pursued their flight, and when they descended upon a field, left scarcely a green thing visible. The entire surface of the land, in such districts, over which they passed, appeared as bare and desolate, as if occasioned by the withering influence of the flames. In some instances, we were informed that after destroying all the verdure, they unhesitatingly lit upon the backs of the sheep in the pastures, and commenced devouring the wool with as much apparent relish as if it had been, what we

should have supposed, their more natural food. On many occasions, we witnessed them basking in the sunshine, on the denuded surfaces of the rocks, to such a degree as fairly to obscure them from the eye; and many of the larger streams have for some considerable distances been entirely covered by their floating carcasses, tainting the atmosphere with the odors arising from their decomposition, they having been drowned in endeavoring to cross from shore to shore.

We could not learn that the season had been unusually free from moisture, and where we travelled, experienced almost daily rains, but the crops of grass were exceedingly light, and of such a nature, as to be almost rejected by horses and cattle, the cause of which, being attributed most generally to the putrescence of these insects. For a more full and circumstantial history of these ravagers, we introduce the following extract from the travels of President Dwight, as quoted by Harris:

"Bennington (Vt.) and its neighborhood, have for some time past been infested by grasshoppers (locusts) of a kind, with which I had been before wholly unacquainted. At least, their history, as given by respectable persons, is in a great measure novel. They appear at different periods, in different years; but the time of their continuance seems to be the same. This year (1798), they came four weeks earlier than in 1797, and disappeared four weeks sooner. As I had no opportunity of examining them, I cannot describe their form or their size. Their favorite food is clover and maize. Of the latter they devour the part which is called the silk; the immediate means of fecundating the ear; and thus prevent the kernel from coming to perfection. But their voracity extends to almost every vegetable; even to the tobacco plant and the burdock. Nor are they confined to vegetables alone. The garments of laborers, hung up in the field while they are at work, these insects destroy in a few hours; and with the same voracity they devour the loose particles which the saw leaves upon the surface of pine boards, and which, when separated, are termed saw-dust. The appearance of a board fence, from which the particles had been eaten in this manner, and which I saw, was novel and singular; and seemed the result, not of the operations of the plane, but of attrition. At times, particularly a little before their disappearance, they collect in clouds, rise high in the atmosphere, and take extensive flights, of which neither the cause nor the direction has hitherto been discovered. I was authentically informed that some persons, employed in raising the steeple of the church in Williamstown, were, while standing near the vane, covered by them, and saw, at the same time, vast swarms of them flying far above their heads. It is to be observed, however, that they customarily return, and perish on the very grounds which they have ravaged."

These insects need no description, being easily recognised by their prodigious number.

The remedies recommended for the destruction of these depredators are, to mow the grass early so as to secure a crop before much injury has been sustained; the insects being then unable to migrate, in consequence of the imperfection of their wings, perish on the spot. The fields under these circumstances, will suffer much less during the ensuing season, and should this process be universally adopted, the number of insects in a short time will greatly decrease. Another method is, for four persons to draw a stout piece of cloth over the ground, one being attached to each corner, the two in advance holding their edge near the surface of the ground, and the others more elevated. In this manner great numbers may easily be taken, these are to be thrown into boiling water, and fed either to the poultry or given to the pigs. By turning

young turkeys into the fields, great numbers of them will be destroyed, they being exceedingly fond of the food, and the condition of the birds in a short time will be greatly improved. JAS. EIGHTS. Albany, Oct. 12.

Manufacture of Manure.

We copy the following statements from the Annual Report of the Hampshire (Mass.) Ag. Society for 1851, and commend them to the attention of all who desire to increase the amount of their manure:

Samuel Powers' Statement.—I have, during the last four years, been in the habit of using compost manure to a considerable extent, and from the experience that I have had in its application, and the results that have attended its use, I now think it far cheaper, and equally as durable for a fertilizer, as the best animal manure. In 1847, I took from my peat swamp, the soil of which is composed of vegetable matter, that has been accumulating there for many years, about one hundred and twenty-five cart loads of this peat, and mixed with it ashes, saltpetre, and plaster, in parts equal to one hundred bushels ashes, one hundred pounds of saltpetre, and five hundred pounds of plaster, for the whole lot. In the spring of 1848, I carted this mixture upon a field adjoining, the soil of which is a fine deep loam, capable of being enriched to any extent, and spread upon two acres; fifty large loads of compost, harrowed it in and planted it with corn. Upon two acres adjoining, of precisely the same quality, forty loads of good yard manure were applied. The result was, the corn on both pieces was good, yet that on which the compost was used was more luxuriant from beginning to end, and produced some seventy-five bushels per acre. After harvesting the corn, one acre of the land composted was sown to wheat, and the other to rye; both crops were good, the part sown to rye producing about twenty-five bushels, and the wheat twenty bushels. And had not the frost killed it out, it would probably have yielded thirty bushels. The rye sown on the two acres manured, produced twenty bushels per acre.

In 1850, I planted the same four acres again, adding ten loads of compost, making sixty loads for the two acres, and putting the same quantity of manure upon the other; it produced a very heavy crop of corn. After harvesting it I sowed it again with wheat and rye, and produced as good a crop as before.

In the spring of 1851, I sowed grass seed and harrowed it in among the growing crop, and it now presents a very promising appearance. My object in experimenting upon these two pieces of land, has been to test the qualities of compost, and its utility in preserving the qualities of the soil, which has been done to my entire satisfaction, both parcels being raised from a low to a high state of cultivation, and can, I think, be mowed for several years to come, with good success.

My anticipations have been more than realised, both in regard to the productiveness of the land, and future prospects of the crops, which are all in favor of composting, one important consideration of which is its cheapness, the cost not exceeding thirty-three cents per load, on the lot, or about one-third the expense of animal manure. My practice is to mix the compost one year, and use it the next. I have also applied it on several other parcels of land, with equal results. In 1849, I put fifteen loads of compost on one-half an acre of land, beside the same quantity of land on which was spread at the rate of twenty-nine large cart loads of manure to the acre. The corn grown from the compost was the best, and produced forty bushels. I also spread twenty loads on grass, as a top dressing, and experienced the same results. In 1851, I applied to one acre about 40 loads of compost, with nothing but plaster, to as good purpose as heretofore, for the growing of corn. Also 20 loads to another acre of corn, and procured about the same as when twenty loads of manure were used, side by side. In all cases where this compost has been used, not only has it produced good crops, but it has much

improved the land, so that it is now in a good state of cultivation. *Hadley, Oct. 20, 1851.*

David Rice's Statement.—I present the following statement in regard to a compost manure that I have used and tested for several years. It recommends itself by several considerations. I state in the outset, that the two great objects to be looked after in making manures, are *cheapness* and *strength*. A strong fertilizing manure that *costs but little*, is what farmers most desire. The experiments that I have made, have not been on a large scale, but large enough for the deduction of facts, which I wish to state to the committee.

Immediately after planting in the spring, and after I have used what manure I want, I commence my compost heap for the next season. Into a convenient place, which with me is a hollow in the angle of a bank wall, on the south end of my buildings, I deposit first a load of horse manure. Over this I usually spread the scrapings of my wood yard and cellar, especially in May, and all other refuse substances that will make manure, that I find about my buildings, such as the rakings of the yard, and old leaves, &c., making in all another small load. Over this I add a load of loam, then over the whole I spread about a bushel of ashes. For the next three or four weeks this heap receives from the washroom, all the soap suds and washing water, and from the house all the useless slops and washings of the kitchen, sweepings, &c., being kept continually moist. In about four weeks after the first deposit, I add another load of horse manure, more loam and sand from the washings of road drains spread over the horse manure, and over all, a layer of wood ashes, occasionally adding more during the next four weeks. This heap for the succeeding four weeks, receives as before, all the fertilizing substances that accumulate in the wash-room and kitchen. This process is continued during the summer and fall until snow covers the ground, and then I call my heap finished, only as it continues to receive during the winter, washings, slops, &c.

This manure I have usually applied to corn land, but never expecting to make any written statement as to its fertilizing qualities, I have not tested it as methodically as I otherwise should have done. I have tried it by the side of good barn manure, and by the side of good hog yard manure, and it produces a heavier growth of corn than either. I noticed, particularly this season, that where I manured corn in the hill with my compost and hog-yard manures, a load of each being deposited side by side, on equally good land, that corn grown over the compost manure was the most vigorous, darker colored, and produced quite as large a crop in harvest time, as that grown over the hog yard manure.

I have tried it also in the hill for potatoes, and find it fully equal to the best hog-yard manure. I claim for this manure the following advantages:

First it is *cheap*. Horse manure *alone* is a miserable fertilizer, and this, excepting the woodashes, is the only substance of any value, that enters into the composition. Combined in the way stated, it helps to form a valuable manure. Loam and washings from the road side, cost nothing but the labor of getting them. All the refuse substances around the house, cellar and yard, are got rid of as nuisances, and converted to a valuable purpose. The wood ashes lose nothing of their value combined in this way, but rather are rendered more useful by imparting their virtues to other substances, making a compost more fertilizing than ashes could be alone.

Again, as a matter of cleanness and convenience, this compost heap is of great advantage. How often do we see around farm houses and farm yards, accumulations of substances rendering the premises filthy and unsightly. The compost heap receives all these otherwise useless accumulations, and greedily drinks in all the slops and washings that otherwise would be forming dirty and offensive drains about the premises; but in this way, they are fitly and economically disposed of. *Leverett, Oct., 1851.*

Never run in debt unless you see a way to get out.

Improvement of our Common Sheep.

In the improvement of sheep, as well as of all other animals, the *male* is considered of more importance than the female, and more care is therefore necessary in selecting one; yet, for the production of perfect animals, it is absolutely essential that both male and female be well bred; and if not individually perfect in every point, the conformation of the *two* should be such as when combined would form a perfect creature. So that, in endeavoring to improve our common flocks of sheep, we should not only get good, first rate bucks, but should select out from the flock the ewes of the best age and make, to put with him; and in choosing them, should have an eye to those particular points we wish to have well developed in the lambs. In this way much may be done to improve our ordinary breeds of sheep, without much outlay in purchasing improved stock. A knowledge of the principles of breeding, and care in the selection and management of the ewes from which we intend to breed, and the choice of a buck adapted to counteract any deficiencies in the ewes, will, if judiciously persevered in for a few years, greatly improve any flock of sheep.

Farmers often procure a buck which, however useful he might be for other flocks, is altogether unsuitable for the flock he is intended to serve. Again, in a large flock of ordinary sheep, there are often two or more kinds of ewes, with characteristics entirely different from each other: hence a buck that might be first rate for the one, and calculated to improve the breed, would be altogether ill adapted for the other, and would propagate imperfections rather than neutralize them; yet how common is it to let the whole flock run together, and have the indiscriminate use of the same bucks. Instead of this careless, heedless, and profitless way of breeding, the flock should at this time be judiciously assorted into lots of forty or fifty, having a buck with each lot possessing strongly the particular points in which the ewes are somewhat deficient, and in accordance with the object for which the lambs are raised. Where a small flock is kept, and only one buck is needed, a farmer can often select out some ewes of a particular conformation, that would be better served by a neighbor's buck than his own. The neighbor, too, may be in the same circumstances; and thus a change of ewes to be served by each other's buck, would be mutually advantageous to the owners, and beneficial to the flock.

The best time at which to place the bucks with the flock, depends a great deal on the breed of sheep, and the object of the breeder. If his flock is rather coarse woolled, and he wishes early lambs for the butcher, the middle of September is perhaps not too soon. This, as ewes go twenty-two to twenty-three weeks, would bring the lambs about the first of March, which, in the vicinity of large cities, where early lamb commands a good price, is the best time—yielding most profit although a little extra care and feed are necessary. The buck, in this case, should be a Leicester or South Down, as their cross with common sheep gives her a larger lamb, with increased tendency to fatten, and early maturity. Such a cross with our common half-blood Merino flocks, produces good mutton sheep, and it is often profitable to adopt it for that purpose; but it would be folly to attempt to *breed* from such a mongrel race. If the object of the flock-master be merely the production of wool of fine quality, he should procure Spanish or French Merino bucks, selecting from his flock the best ewes of from three to eight years old, to place with them. It is not desirable to have the lambs come till there is a prospect of grass for the mother; so the bucks should be kept from the flock till the latter part of October. And as grass is often scarce and innutritious then, it will be advisable to give a little clover hay, or perhaps oats or peas, to stimulate the ewes at that time. The buck, too, should be grained or have a little oilcake at night, separately from the ewes. Nothing pays better than careful attention to the flock during winter; and towards spring the quality of their food should be increased, and a few ruta бага or mangel wurzel may be

given with advantage. Especially are they beneficial when the ewes are heavy in lamb, or after lambing, if grass is not ready. It is not, however, desirable to have the breeding ewes too fat; but we are sorry to say this is a caution too little needed—more flocks being injured by scant and non-nutritious food, than by over feeding.—*Gen. Farmer.*

Worcester Agricultural Society.

A large pamphlet of 78 pages, embracing the Transactions of the Worcester (Mass.) Agricultural Society, for 1851, exhibits the energy and enterprize of this local body, which contrasts strongly with the condition of some other county societies, whose whole annual proceedings consist of two and a half columns in the village newspaper, one week after the fair.

The following interesting facts, drawn from the pages before us, cannot fail to be acceptable to our readers:

Among the *animals* exhibited, was the bull Sampson, only 19½ months old, but possessing the remarkable weight of 1,400 lbs. It was raised at North Providence, R. I., and is owned by H. B. Lyman—"perfectly symmetrical in shape, and seems to possess, in a rare degree, the qualities of a good breeder." We are not informed of his breed.

A cow belonging to Joseph A. Reed, five years old, one half native, one-fourth Ayrshire, and one-fourth Holderness, yielded in nine days, early in summer, 15 lbs. 15 oz. of butter; and during 9 days early in autumn, 10 lbs. 14 oz. of butter. Another cow, of native breed, yielded during the same periods, 12 lbs. 15 oz. and 11 lbs. 4 oz. respectively. W. S. Lincoln exhibited two cows, mostly native, which yielded as follows:—

1st cow (¾ Ayrshire) yielded in 9 days in June, 266 lbs. milk, yielding 12 lbs. 9 oz. butter.

2d cow yielded in 9 days in June, 299 lbs. milk, yielding 13 lbs. 14 oz. butter.

1st cow yielded in 9 days in September, 233 lbs. milk, yielding 11 lbs. butter.

2d cow yielded in 9 days in September, 236 lbs. milk, yielding 9 lbs. 15 oz. butter.

They had no feed but pasture, with cornstalks added in autumn. The preceding year, the first cow gave more than 6 lbs. of butter during the same periods over the present year. How much better would a herd of such animals as these be on a farm, taking their manure as well as milk into consideration, than entire dependence on grain crops. Experiments like these, accurately recorded after weighing or measuring, would soon give any farmer a great deal of valuable information.

On the subject of *plows*, we have the following reminiscence from the report of Levi Lincoln, chairman of the committee, who, after speaking of the high improvements made by Ruggles & Co., and others, remarks: "Within the period of the present generation, John Wesson, of Grafton Gore, had a reputation little less marked, within the limited extent of his capacity to supply, than is now enjoyed, far more deservedly and widely indeed, by our own Ruggles & Mason, yet how immeasurably different in power and completeness the implements of their respective production! Wesson's plow was of *wood*, with an iron coulter and share only. The mould-board, if secured at all from accident and sudden force, or rapid de-

struction by wear, was left to be protected, in the judgment or convenience of the purchaser, by a plating of rusty iron hoops, or worn and inverted horse-shoes, or such like appliances, quite as effectual in their use, to the resistance of the power of draft, as to the endurance of the instrument."

The committee on *poultry* furnish the following items of statistics:—The amount of sales of poultry at the Quincy Hall Market, Boston, in the year 1848, was \$674,423. The amount of sales for the whole city of Boston, the same year, was not less than one million dollars. The amount of eggs sold during the same year at Quincy Hall Market, was 1,129,735 dozen. During the same year, the whole value of eggs, consumed and exported in France, is estimated at 57 millions dollars; the amount invested in poultry in the United States, \$12,176,170; in Great Britain, \$50,000,000.

An estimate is presented, showing the relative cost and value of *oats* and *carrots*, which makes the cost of one acre of carrots of 500 bushels at \$25 more than for an acre of oats of 40 bushels. Calling the oats worth 35 cents per bushel, and the carrots half that or 17½ cents, we have \$68 worth of carrots per acre against \$14 worth of oats. Every seedsman, we would suggest, should get the substance of this statement which we have here given, printed in *large letters* on his boxes of carrot seeds, that "he may run who reads"—that is, run his carrot-drill in putting in extensive crops.

On the Rearing of Mules for Market.

It is not probably generally known, that the rearing of mules is one of the most profitable occupations, engaged in by American farmers; and that the supply does not keep pace with the demand. The principal markets are those of the cotton and sugar growing states; and for the California and Oregon emigrants, who take the overland route. At the present time a three year old mule, standing thirteen hands high, and of good action, will readily bring \$100, and those standing fourteen hands high, and well broken to harness, and possessing good points, command from \$120 to \$130 each. The great endurance of the mule; their adaptedness for hot climates; the great age to which they attain; the ease and cheapness with which they are raised, and their hardy constitution, together with the high price obtained for them, and the increasing demand, all tend to make it a business worthy the attention of those engaged in pastoral life. But very little science appears to be employed in the propagation of this species of animal hybrid; and the best course to effect a change, would be for agricultural societies to award liberal premiums for the best formed, and largest, and most active specimens; and to encourage the importation of the largest sized and best made jacks from the south of Europe. To secure large and well made mules, the first consideration is to obtain the services of a large, active, and neatly made jack; and the next point of importance is to select the largest and most sprightly mares, and the progeny from such a description of stock would afford a race of mules that would command the highest prices, and for all kinds of labor in a hot dry climate, would be incomparably superior to horses for all kinds of severe drudgery, and especially for farm labor and road-

sters. By careful crossings of this kind a popularity would thus be imparted to the mulish family, that in no other way can be obtained, and there is no good reason why mules averaging sixteen hands high, embodying a beautiful combination of the points of both races of animals, cannot be raised with as much certainty and success as attend the efforts put forth to improve the race of horses, or any of the domesticated animals. Good mares for the purpose are abundant in Pennsylvania, in parts of Tennessee, and in most of the northern states; and the Spanish Jack should be imported and made to take the place of the stunted and inferior race that are generally found in this country. This may at first sight appear a small matter, but the demand has become so urgent and universal for mules, throughout a very large portion of the Union, that to our minds, agricultural societies might with great advantage to the interests of agriculture, hold out liberal encouragement for the improvement of this description of stock. The Board of Agriculture for the State of Ohio, have at both the annual State Fairs, awarded very liberal premiums to the owners of the best specimens of Jacks and mules; and in the rearing of this stock, that state is now taking a very prominent stand, as well as in most other departments of agriculture.

The President of the Board of Agriculture, Michael L. Sullivan, Esq., who is the proprietor of a farm of some nine thousand acres of beautiful land, lying contiguous to the state capital, and along side of the national road, some seven miles in length, is the owner of several Jacks, and his annual sales of mules range from three to four hundred, mostly three and four year olds. Many of his mules are broken to the plow and wagon, and the strongest and finest teams that are brought into the Columbus market, are those of Mr. Sullivan's, consisting of four well trained mules to each wagon.

The business of trading in mules is becoming a great favorite with many farmers in Ohio and Kentucky, and the day is not distant when this department of stock rearing will be very extensively and profitably conducted throughout all the north-western states. The Upper Mississippi Valley, including the states of Illinois, Indiana, Wisconsin, Missouri and Iowa, hold out greater inducements for the propagation of mules, than any other portion of the Union. The boundless and inexhaustible character of the pasturage of this interesting region; and having a direct water communication through the unrivalled Mississippi, to the southern states, where the future demand will largely exist; together with the new and increasing demand that has been imparted by the tens of thousands of California and Oregon emigration, that annually pass along the over-land route, mostly making their outfits in those states, all tend to make that the most desirable location that could be selected for prosecuting extensively the business of propagating and rearing large and handsome mules.

The entire cost of rearing a three-year-old mule in Illinois or Iowa, need not exceed thirty dollars, and the price obtained ranges from sixty to one hundred dollars, according to quality. No other stock are reared with so little expense and risk, and none affords so large a profit, with the prospect of a continued steady demand. To

make the business as profitable to the farmers as it is susceptible, more pains are required on the part of those who undertake to select the Jacks, and instead of employing small and badly shaped mares, the largest and finest should be selected for this purpose. Then, instead of allowing the young mules to become stunted the first winter, by a short allowance of provender, and even that of an inferior quality, as much pains should be taken in providing them with wholesome food, as is given to the rearing of colts or calves. The young mule is very hardy, yet to secure a full and early development, he requires artificial food in winter and spring, as well as any of the young of the other descriptions of domesticated stock.

W. G. EDMUNDSON.

Prolific White Clover.

I had been in search of wild plants on the 6th of July, 1851, and happened to find a root of white clover of the same kind as the red. I planted one of the stems in my garden, and it grew well, producing three blossoms before fall. I covered it in the winter with dry stalks. On the first of May, 1852, I removed the covering and buried it in one inch of earth. In eight days the clover made its appearance. Twelve stems branched in every direction, and on the 1st July twelve blossoms appeared, each double, like the red clover. Stem after stem grew from each of the twelve, and blossom after blossom, till on the 10th there were 84 blossoms, on the 20th, 345—on the 30th, 690—each of the blossoms having from 84 to 130 petals.

I think it will continue to blossom during the month of August. It covers a plot of ground as large as a carriage wheel, with an average length of stem of 2 feet 3 inches. Can any of the farmers in the states produce such a plant in one year and twenty-five days? Several of our farmers and gardeners confess never to have seen its like before. I think I shall have thirteen roots from it this fall, beside the seed. The text book on the Agriculture of New-York, for 1848, says, "Only two kinds of clover are cultivated to any considerable extent in this country, the common red clover, and the cow-grass, or short clover;" besides these there is the white clover, found in pasture lands.

One of the numbers of the Cultivator speaks of the White Dutch clover. I have never seen it, and would like to know to what class it belongs. I have several varieties of clover in my garden, but one is missing. It belongs to the white kind, and runs on the surface of the ground, like the strawberry.

There are various species of plants yet undescribed. FRANCIS MCKAY. *Richmont, Halifax, N. S.*

SALTPETRE FOR SEED CORN.—The Germantown Telegraph gives the statement of Tracy E. Waller, who soaked his seed corn in a solution of saltpetre and hickory ashes, made of 2 lbs. of the former and one pint of the latter in a gallon of warm water, the seed soaking 3 or 4 hours. The soil was not very good, but the corn was luxuriant. This experiment is easily repeated—but it may with great propriety be asked, what influence can this soaking have on the corn plants after the first few days of their existence, when the roots have run off far beyond its possible influence?

Horticultural Department.

House Plants in Winter.

"What is the reason that my plants do not grow so well as Mrs. Jones's? I am sure I take a great deal more pains with them, and water, and nurse, and air them, but all will not do; they are weak, slender, sickly, and some of my best plants have died—while Mrs. Jones seems to take very little care of her's, and yet they grow and bloom beautifully!"

This appeal to us for aid and advice, which has just been made, is not the first complaint of this kind of ill success. The truth is, some plants are actually nursed to death. Care and attention bestowed on plants, *which they do not need*, are worse than no care at all. It is knowing *just what to do*, and doing that, and no more, that gives some persons their success. Or, as a late writer remarked, there are two great points to be attended to, 1. Not to *let* your plants suffer by neglect; and 2, not to *make* them suffer by interference. We would class the requisites for good treatment, as follows:—

1. Plenty of light.
2. A due supply of water.
3. Proper temperature.

Fresh air, cleanliness, and good soil, are obviously of importance, but are less likely to be neglected than the three first named wants, and we shall therefore add a few additional remarks under these heads.

1. *Light*.—Plants cannot by any possibility have too much of this. The stand should therefore face the window, and be placed as near to it as practicable; and the window should be broad, as little obstructed in its light by outside trees as the nature of the case will admit. But rapidly growing plants require most light; hence such should be placed more directly in front of the window.

2. *Water*.—This must be given according to circumstances. A plant in nearly a dormant state, needs very little—those in a rapidly growing condition require considerable. Too much water will make the latter grow slender, but they will bear a greater supply if in a strong light. It must be remembered as a standing rule, that dormant plants may remain comparatively in the dark, and with little water; and growing ones should have a good supply of water and a full supply of light. But it must not be forgotten that green-house plants generally are nearly dormant during winter, and the soil must therefore be kept but moderately moist, as the plants in this condition do not pump any moisture from the soil, and little escapes directly by evaporation. Drainage, by filling one-fifth of each pot with charcoal, is of importance.

Temperature.—Many house plants are destroyed by too much heat, which increases the dryness, and both these causes together are more than they can endure. A cool room, never as low as freezing, is best. From 50 to 55 degrees is much better than 65 or 70, the ordinary temperature of living rooms.

Syringing the foliage with tepid water, to wash off whatever dust accumulates, is of use; and the admission of fresh air, when there is no danger of chilling or freezing the foliage, should not be neglected.

Market Pears.

In planting 500 trees for standards to constitute a market orchard, would you plant mostly Virgalieus, as some of my neighbors have done, or a proportion of other sorts, and what should these be? *M. W. Western New-York.*

The Virgalieu (or White Doyenne) as grown in western New-York, as well as in some other portions of the country, is a fruit of transcendent merit, not only for its fine quality, but for its great and early productiveness, and for the hardiness of the tree. But the scab and cracking, which renders it "an outcast, intolerable even to sight," as Kenrick designates it, in some parts of the eastern states, has of late years appeared to some extent, both in western New-York and Ohio; and it may therefore be somewhat hazardous to plant it exclusively. We think under these circumstances, it would be best to make a selection of five or six of the best varieties, foremost of which, and in the largest quantity, we would place the Flemish Beauty, a free growing sort on pear stocks, and bearing fine crops of large, handsome, and excellent pears, ripening about the same time as the Virgalieu. The Onondaga, though not so good, is a large, handsome and productive variety, and would undoubtedly sell well. The Louise Bonne of Jersey which grows so well on quince, produces so abundantly, that it should form a large proportion of a market orchard. The Bartlett, for an early autumn sort, will not of course be forgotten; and the Vicar of Winkfield for a late market pear is deservedly popular for its enormous crops. When the keeping and ripening of winter pears shall be better understood, it is not improbable that they may form a most important class for profitable cultivation, and among which the Easter Beurre for long keeping, will certainly be one of the best, the planter not forgetting that it must have a rich, warm, and highly cultivated soil.

Sweet Bough—Color of Apples.

"Does the Sweet Bough ever have a faint blush? Some specimens exhibited at our State Fair called the Bough, had a blush, but I can find no descriptions that mention it." *J. A. D.* The Sweet Bough, in common with nearly all green or yellow apples, has a faint blush when grown fully exposed to the sun—and this is so common or almost universal with apples of this class, that pomologists have regarded it as hardly necessary to mention as a distinctive point.

Different seasons, soils, and stocks, produce various results in coloring apples. We have known the Rhode Island Greening, in some years, to be a full deep green, on every part of the tree; and in other years, to have very generally a deep reddish brown cheek. The Porter is usually remarkably free from a brown tinge; yet during the growth of the fruit towards the close of summer, it has been seen to have conspicuous stripes of red in the sun, but which entirely disappeared when fully matured. A long warm season does not always produce the highest color—it was observed a few years since at one of the Ohio fruit conventions, that the specimens from the warm region of Cincinnati were not nearly so much reddened as those from the cooler shores of Lake

Erie at Cleveland. An interesting incident under this head once occurred in the case of the first specimens of *Jewel's Red* which we fruited—they maintained so green an appearance until nearly grown, that we were led to doubt their genuineness; but being blown off by wind, they were carried into a room, where in a fortnight, a profusion of red stripes gradually covered the whole surface.

Westfield Seeknofurther.

"In your description of the *Westfield Seeknofurther*, you state that the leaves are 'sharply serrate.' We have an apple called the *Seeknofurther* which answers your description in every respect but the leaves, which are *crenated*." J. A. DONALDSON. *Ravenna, O.*

The leaves of the *Westfield Seeknofurther* are perhaps more variable than any other variety. When the trees are vigorous and the leaves large, they are frequently sharply serrate; but we think it would be generally more accurate to say *serrate* simply. Small leaves, or those on crowded trees, become *serrate-crenate* and often strictly *crenate*.

Plums at the South.

Wm. N. White, of Athens, Georgia, gives in a late number of the *Horticulturist*, the results of his own and other's experiments in plum raising in that state. The *Imperial Gage* proves the best—next *Elfrey* and *Prince's Yellow Gage*. The *Columbian* succeeds very finely. The *Jefferson*, very large, and the handsomest of all, has in Georgia, as well as elsewhere, disappointed expectations as to its quality, lacking juiciness and flavor. Among other sorts found to be valuable, are *Chickasaw*, *Italian Damask*, *Duane's Purple*, *Bingham*, *Bleeker's Gage*, and for cooking, *German Prune*, *Horse Plum*, and *Red Magnum Bonum*. The following have proved worthless, viz: *Washington*, *Diamond*, *Gen. Hand*, *Semiana*.

The *Green Gage*, *Lawrence Favorite*, *Coe's Golden Drop*, and *Huling*, have not been tried.

Profitable Pear Trees.

Wm. S. Lapham, of Macedon, N. Y., has a pear tree of the *Virgalieu* or *White Doyenne* pear, standing in a corner of his house yard, which is probably over 25 years old, and which yielded the present year *fifteen bushels* of fine smooth pears, which sold on the ground at two and a quarter dollars per bushel, or about thirty-four dollars for the crop. One hundred and sixty such trees on an acre,—which of the size of this would not be crowded—would at the same rate yield the handsome sum of *five thousand dollars*. If half this were the yearly interest, (and crops nearly as large as this are often obtained,) what would be the value of the principal, that is, of one acre of such trees.

Since writing the above, we have been informed of a still larger crop. Israel Delano, of the same neighborhood, gathered from two trees of the *Virgalieu*, forty-two bushels of pears, all of which were sold at two and a quarter dollars per bushel, or 94 dollars for the two.

The productiveness of this variety is very great, and in Western New-York it succeeds admirably. Of late

years, however, there have been occasional indications of the scab and cracking, which have rendered this pear worthless in some of the eastern portions of the Union, and which, as we observe by Dr. Warder's Review, is beginning to appear in Ohio. Hence the prudent planter will not set out this variety exclusively, but will mix in a good proportion of those equally productive sorts, the *Flemish Beauty*, *Louise Bonne of Jersey*, *Vicar of Winkfield*, &c.

Shade Trees.

The subject of shade trees for the road side, and the improvement of the appearance of farm houses and buildings, is of late years exciting more attention among farmers. Yet the desire for the decoration of their homes is nothing like as general as it should be. Farmers, as a class, are apt to fall into dull, monotonous, plodding life. Like other men, they want variety in their business, which would have a tendency to make life pleasant, and home happy. One of the best antidotes to the cares and trials of life, is to turn the mind to home and rural embellishments.

One of the first steps in improvement is the planting of shade and fruit trees by the road side, and around our houses. If every farmer and landholder could be induced to plant trees along the borders of their land, the entire highway would soon become a delightful avenue. How grateful would this be to the traveller—what an addition to his comfort!

The trees might be set at such distance apart, as not to interfere with or injure the growing crops, and the fallen leaves which should be gathered in autumn, for manure, would more than pay for all trouble. The great difficulty is, that not one farmer in ninety-nine feels interest enough to set out trees about his own house, to say nothing of the road side. Still, if one or two men of the right stamp could be found in every town, we think the object might be attained by forming town societies, by which funds could be raised for this purpose.

As to the kind of trees to be planted, more has been said than is necessary, considering that so few have been planted at all. Twenty-five or thirty years ago, the *Lombardy Poplars* were set out almost exclusively. They grew up quick and straight, making at the best a very stiff appearance; but at the present time few of these trees are left in the country. The two best trees for shade are the *Sugar Maple* and the *Elm*,—both very fine and ornamental. Especially for yards we prefer the maple, as it makes a thick clean shade, and seems to impart a coolness to the atmosphere in hot weather. For shading a street elms are preferable, as they spread their branches wider than the maple.

Along the road-side we would set out promiscuously, elms, maples, oaks, beeches, chetnuts, hickories, ashes, birches, and all indigenous trees that grow well. In this way plenty of shade trees can be procured, which is not the case when one variety is used exclusively.

The trees should be well taken up, so that as many of the small roots as possible, be retained, and then carefully set out. If cattle are allowed to run in the streets, they must be protected from this great nuisance. If any trees should fail to live after the spring planting, they can

be easily replaced in the fall. When these trees have begun to thrive, what town would grudge the money laid out in such improvement. How much more satisfaction can be derived in thus simply adorning our homes, than where the whole population seem to follow the motto—"Every man for himself, and the devil for us all."

On most of our farms there is more or less waste land which is not capable of cultivation, such as steep hill sides and rocky soils. If these spots could be covered with forest trees, in a few years a pleasant appearance would be given to these barren places. Many of these bare places, if protected for a time, will spring up spontaneously with trees, and where this is not the case they may be planted at a small expense. But many farmers instead of planting trees on such spots, cut off the growing wood and beat down every rising sprout. We know a farmer, who cut down a handsome grove of chestnut timber, near the roadside, and instead of allowing the sprouts to cover the ground, beat them down till they were killed. His excuse was that he wanted the land for an orchard, but it proved so rough and stony that he could not cultivate it for this purpose, and ever since the ground has laid a barren, rough, unsightly ledge. So much for that piece of mismanagement. L. DURAND.
Derby, Ct., Sept. 15, 1852.

Pears on Quince.

During the New-York State Agricultural Fair at Utica, evening meetings were held by the principal pomologists in attendance, and a great deal of interesting and valuable information was brought out during the discussions. Among other things, a list of those varieties of the pear was made out, which have been found by experience to succeed well on the quince, and to continue to bear for many successive years, without exhaustion or decline, according to the experience of those present. This list, which was intended to contain valuable sorts only, (and which might have been considerably augmented by poor varieties,) was composed of the following:

Louise Bonne of Jersey,	Capiaumont,
Duchess Angouleme,	Napoleon,
Beurre Diel,	Beurre d'Amalis.
White and Gray Doyenne,	Easter Beurre,
Long Green of Autumn,	Soldat Labreur,
Doyenne Boussock,	Uvedale's St. Germain,
Henry IV,	Bergamotte Cadette,
Summer Frankreal,	Beurre d'Anjou,
Madeleine,	Doyenne d'Hiver Nouveau,
Stevens' Genesee,	Urbaniste,
Vicar of Winkfield.	Beurre Gris d'Hiver No'vu,
Glout Morceau,	Catillac.

It should be observed that these are such as generally or uniformly succeed on the quince under good care and cultivation. There are other pears which nearly always fail on quince stocks, and which are never thus propagated by prudent nurserymen for sale, among which most conspicuous is the Beurre Bosc. The Marie Louise and Dix are of the same class; yet we have seen a tree of the Marie Louise on quince, seven feet high, which had borne good crops for several seasons; and J. C. Holmes informs us in the *Michigan Farmer*, that a Dix on quince, in a rich *clay soil*, has continued to grow well for some years. Neither of these were double worked.

We cite these instances to show that single experiments

are insufficient to determine the fitness of any variety for this mode of propagation, and we have fully ascertained that some sorts succeed only on particular soils, and fail on others. Hence a list for general propagation should be made up from the experience of all parts of the country, and it is this which renders the above list one of particular value.

The Rostiezer Pear.

We have fruited this variety for many years, and have always esteemed it as nearly or quite unequalled in quality, among summer pears, standing quite as high among these, as the Seckel does among autumn varieties. We are therefore gratified to find in the last number of *Hovey's Magazine*, the following remarks by the editor, who, as is well known, has a very extensive knowledge of fruits.

"The Rostiezer is certainly one of the finest of our summer pears; hitherto we have thought it too small to give it a high rank, notwithstanding its delicious, spicy, Seckel-like flavor; but its smallness has been the fault of cultivators; this year it comes up to the full size of a medium pear, being here as large as the St. Ghislain, and we have seen specimens even much larger from other places. It is an enormous bearer, and hangs, as the usual phrase is, "like strings of onions," from the tree; we counted no less than nine handsome pears from one cluster of blossoms."

Preserving Fruit in a Fresh State.

WM. R. and ELIZA SMITH, of Macedon, N. Y., have devoted nearly their whole time during the fruit season the present and past year, in perfecting their process for preserving soft and perishable fruits in glass jars, in a fresh state, like that when first taken from the tree. Their mode consists substantially in expelling the air from the jars by heat, and then hermetically sealing them; but there are so many minute particulars to be attended to, that one who should remain a whole day in their laboratory, and closely observe every part of the process, would not probably succeed as they do, after a month's trial. In truth, one might as well think to draw a fine picture, without experience, by watching for a few hours the brush of an eminent artist. They preserve strawberries, cherries, raspberries, peaches, plums, pears, tomatoes, &c.; and so different are the details of the process for each of these, that the necessary requirements for one sort, would, if applied to others, entirely spoil them. Of their fruits prepared last year, when they had had much less experience, some proved imperfect by losing a part of the peculiar fresh flavor of newly plucked fruit, while other specimens which we examined, and more especially the *clingstone peaches*, could hardly be distinguished from those of yesterday's ripening. They are particularly successful with tomatoes, the flavor of which, after months of keeping, we much prefer to that of the specimens which are usually brought early in summer from the Island of Bermuda. They have now on hand a large collection of jars or bottles for distribution, and we hope they may reap some reward for the extraordinary labor, skill, and ingenuity which they have bestowed in perfecting their process.

When you retire to bed, think over what you have been doing during the day.

The English Crab, and the Apple.

Prof. MAPES objects to the position taken by the Maine Farmer, that the English Crab is a distinct species from the common apple, and that the latter did not spring from the former as some have supposed, and as Downing and others maintained. Scientific authority and facts appear fully to establish the entire distinctness of the two. The celebrated English botanist, Ray, regarded them as distinct, and later authorities have given the following specific characters, which show them to be more unlike than many others universally admitted as distinct.

English Crab.—Leaves ovate, *acute*, *villous* underneath; styles *bald*; fruit acerb, astringent, austere.

Apple Tree.—Leaves ovate-oblong, *acuminate*, *glabrous*; styles *villous*; fruit more or less sweet.

In accordance with these marked distinctions, is the experience of centuries; for the English crab has been propagated from seed from time immemorial, without changing its character, or presenting any resemblance to the fine varieties of the common apple. It may be observed that the American crab apple, is totally distinct from both.

Wintering Strawberry Beds—Raising Seedlings.

At a meeting of the Cincinnati Horticultural Society, (and we know that they of Cincinnati are not insignificant on this subject) NICHOLAS LONGWORTH recommended straw or cut straw, or dead leaves, applied in the fall, as the best thing to do for them. Dr. MOSHER used chaff, and found it well adapted to apply to the beds after dressing them in spring. Tan-bark was objected to on account of the dirt after rains.

Raising Seedlings.—LONGWORTH would impregnate a large and good pistillate, with the best hermaphrodite, (or *perfect* flowered) and plant the seeds as soon as ripe in good soil in open ground. From 200 seedlings, he would expect 95 staminate, 95 pistillates, and 10 hermaphrodites. They should be planted separate, and the runners cleared till the sorts were proved. GRAHAM advised planting in pots, and driving them ahead with bottom heat—his plants proved mostly staminate. McAVOY would plant in open ground—but select the best plants and force them. He had one bear a year from planting.

Gradual and Successful Progress in Planting.

One of the most interesting fragments of individual history we have lately seen, especially as connected with horticultural pursuits, is contained in the following extract, which we make from the "Notes on Gardens and Nurseries," in the last number of Hovey's Magazine:

"*Residence of Jos. Stickney, Esq., Watertown*—Strange, indeed, is it, to see how slight a circumstance may change and mould a taste for objects previously of no interest whatever. Some years ago, when the taste for the culture of that gorgeous flower, the Dahlia, was carried to a greater extent than now, a gentleman whose time was almost incessantly occupied in commercial matters, and who possessed only a few square feet of garden, in the rear of his dwelling, in the city, was struck with the splendor of one of the exhibitions of this flower, at the rooms of the Massachusetts Horticultural Society, and at once made up his mind to buy a few plants. Spring came, and they were set out;—they flourished,

—grew,—and all the autumn repaid the careful attention of a zealous amateur, by a brilliant display of flowers. This was grand success for a beginner. Another year came round, and the dozensorts were augmented to fifty, and still the same success. Delighted to find himself so well repaid, (unaware it was entirely owing to that love which spared no pains for the welfare of the plants,) the newest and finest sorts were procured, and another season he not only became a competitor for the prizes, but actually carried some of them off!

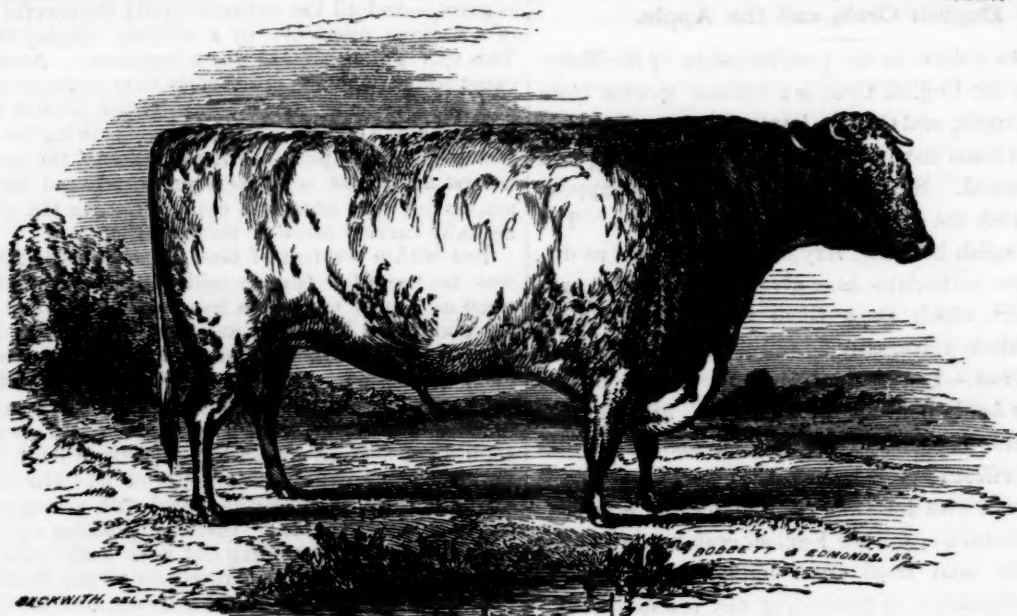
But with a few feet of land, already over-filled, there was no room for further additions to his stock, and he must add more or grow a less number of plants; the latter could not be done, and another hundred feet of ground, worth almost as many acres a few miles from the city, was added. But now other objects divided his attention. The grand displays of fruit were so rich and inviting that to be a mere admirer would not do: why should not success attend the growth of fruit, as well as dahlias; there could be no doubt of it. His resolve was made, and the corners were filled with young pear trees. On they went, growing, thriving, pushing up their vigorous shoots, and spreading out their leafy branches, making sad inroads upon the territory of the Mexicans, and in fact, showing a disposition to dispute all the ground they had heretofore occupied. Time rolled on, golden fruit hung from their heavily laden boughs, and a rich harvest crowned the efforts of the cultivator of the city garden.

And now accompanying him further, we find ourselves on a beautiful spot, on the banks of the river Charles, in the pretty village of Watertown, overlooking its flowing waters on one side, and the thickly settled plain on the other. Terraces, of immense size, covered with trees in full bearing, all the work of half a dozen years, rise one above another, and skirt the river bank. Ascending by several flights of steps, we reach a broad plateau, on which stands the mansion, in the olden style, large, capacious, without ornament, but with that essential of the country house, comfort. It is reached from the front by an avenue from the Milldam road, and is screened in that direction by a grove of gigantic pines, oaks and hickories.

Such is the residence of Mr. Stickney, who was fortunate in purchasing, eight years ago, the estate of Madame Hunt, containing about thirty-five acres, accessible in 20 minutes by the Watertown Branch Railroad, the station being within five minutes' walk. Few places more capable of being made a perfect villa residence, are to be found in the vicinity; and the possession of all this, now under a high state of culture, and affording so much enjoyment to its owner, has been the result of his admiration of a beautiful flower."

THE BALDWIN APPLE IN THE NORTH.—The Granite Farmer furnishes the information that in Hanover, N. H., the young Baldwin apple trees suffer severely by winter-killing, and that it is found the cultivation of this fruit will have to be given up, in that region. It appears to succeed best when grafted into full grown trees. Perhaps the mode adopted by the most skillful nurserymen in cold-wintered Wisconsin would be best—that is, to *bud* the trees instead of grafting them, at three or four feet above the ground. This answers well there.

APPLE TREES KILLED BY POTASH.—Medicines in excess become poisons. The New England Farmer mentions the case of an orchard of one hundred and six thrifty Baldwins, that were washed with a solution of a pound of potash in a gallon of water. The owner found in two days that he had killed the whole of his beautiful and valuable trees. Soap suds or ashes in water, are strong enough. Guano is an excellent thing for trees, and salt is sometimes good, but it is one of the easiest things in the world to kill trees with them in excess.



"Lord Eryholme," the property of L. G. MORRIS, Fordham, Westchester county, N. Y., received the first premium in the class of two-year-old Short-horn bulls at the show of the New-York State Ag. Society, 1851. He was bred in England, by A. L. MAYNARD, Esq., who, as well as his father, has long had a high reputation as a

breeder of Short-horns. The animal in question was "out of condition" at the time the portrait was taken, which gives an idea of gauntness that is not natural. He is a good handler, is straight in the back, good in the crops, and moderately fine in the bone.

Sheep Smearing.

It does not appear to be well understood among the farmers in this country, that the shepherds in Spain and other parts of Europe, have for centuries been in the practice of coating the backs of their sheep with a salve, which is prepared by different flock-masters in different manners.

It would appear that some kind of coating with oil or grease, is considered necessary, and quite indispensable and useful, to promote the health of the sheep, and the growth of the wool.

England alone, paid America in 1851, \$24,000 for poor butter to smear the backs of their sheep. It is supposed English farmers pretty well understand the advantages derived by every expenditure upon the farm.

I am in receipt of a "Price Current of American produce," from John Athy & Co., of Glasgow, Scotland, dated 17th July, 1852, which says, "original grease butter is worth 45 shillings for sheep smearing."

The Highland and Agricultural Society's Transactions for 1844, recommend the use of tallow and train oil, in equal parts, as a salve for sheep.

Another writer in the Transactions says, that after considerable persuasion he got one of his tenants to use tallow and train oil, instead of tar and butter, upon thirty of his flock, and that they are in better condition than any of the others.

The common practice and application in England, is to mix a small portion of tar with the butter. But in Vermont we apply what is called the

CORNWALL FINISH—To 4 measures of burnt umber, take 1 measure of lamp black, one-fourth measure of snuff—mix with linseed oil to the consistency of paint, and put on with the hand after shearing.

This effectually prevents the scalding of the back—

drives off the ticks—is a preventive for the scab—sheds the rain and water from the back—promotes the growth of the wool, and the general health of the sheep.

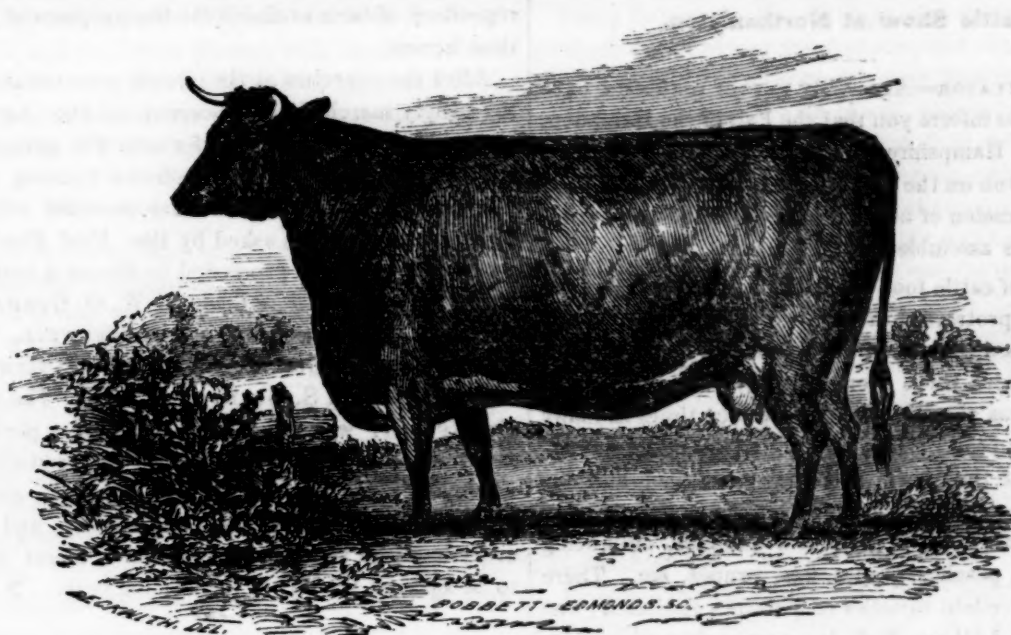
It is reported that the Cornwall Boys charge for this receipt ten dollars, which it is annually worth to any person who keeps 100 sheep—but here you have it gratis. S. W. JEWETT. Middlebury, Vt.

Chapped Teats in Cows.

We have had some experience with this difficulty, and never found anything better as a preventive and cure, than washing thoroughly before milking with clean cold water. If the weather is very raw, a thin coat of pure lard applied after milking, is useful in addition to the washing. Soft butter is said to be excellent for this purpose. In corroboration of the value of this treatment, we quote the following from a communication in the *Prairie Farmer*:—"I have used various liniments, and many kinds of ointments, but none in my experience comes up to the mark like *clean, cold water*. My practice is to take water to my cattle yard, as much as my milking pail. Every teat, and the lower part of the bag, whether sore or sound, is washed clean. The teats are then soft, the cow stands quietly, and no dirt falls into your pail."

CORN IN CALIFORNIA—A Sacramento correspondent of the *Prairie Farmer* says, that although vegetables, grain, &c, generally yield enormous crops, that Indian corn does not succeed well from the soil causing too great a growth—that he has seen it 23 feet high, with but little grain. This appears to be a different result from that usually produced in the eastern states, where corn will bear more manure than most sorts of grain.

Make no haste to be rich, if you would prosper.



"Azalia," the property of L. G. MORRIS, Fordham, Westchester county, N. Y.,—received the first premium for Short-horn cows over three years old, at the show of

the New-York State, Agricultural Society, 1851. She is a cow of good substance, with a well-developed tendency to fatten.

The Lobos Islands and Guano.

These islands, claimed by the government of Peru, and which have, till within a few years, been considered of no value, have become a bone of contention. Barren and uninhabitable as they are, they are the depositories of a wealth, which is destined to fertilize the over-taxed fields of distant countries—that it will ever come into general use, we very much question, but as a special fertiliser for certain crops, and in certain localities, it is valuable. Large quantities are being imported by English speculators, and the attention of the British Parliament is being called to the expediency of securing the article on more favorable terms, or of sending ships for the purpose of discovering more islands, upon which similar deposits have been made. A dispute is pending between our own government and that of Peru, with regard to the title of these islands.

The following description of the islands, and the situation of the guano, we cut from "Dickens' Household Words," and will interest our readers:

"The three islands lie nearly due north and south; the breadth of the passage between them being about a mile in one instance, and two miles in the other. The south island is as yet untouched, and from a visit I paid it, I should suppose it to contain more guano than is found in either of the others. The middle island, at which we traded, has been moderately worked, but the greatest quantity of guano is taken from the north island. In their general formation the islands are alike. They all rise, on the side next the main land, in a perpendicular wall of rock; from the edge of the precipice, the guano then slopes upwards to the centre of each island, where a pinnacle of rock rises above the surface; from this point it descends to the sea by a gentle declivity, the guano continuing to within a few feet of the water. Each island has, at a distance the appearance of a flattened cone, but they have all been originally broken into rocky hills and valleys. The deposits of guano having gradually filled up the valleys, and risen above the rocks, the cuttings of the guano diggers vary from a depth of eighty or a hundred feet, to merely a few inches.

"The guano is regularly stratified; the lower strata

are solidified by the weight of the upper, and have acquired a dark red color, which becomes gradually lighter towards the surface. On the surface it has a whitey-brown light crust, very well baked by the sun; it is a crust containing eggs, being completely honeycombed by the birds, which scratch deep, oblique holes in it to serve as nests, wherein eggs, seldom more than two to each nest, are deposited. These holes often running into each other, form long galleries with several entrances, and this mining system is so elaborately carried out, that you can scarcely put a foot on any part of the islands without sinking to the knee.

"Though the islands are not large—their average circumference being about two miles—the accumulation of guano is almost incredible. Calculations as to the probable quantity must, on account of the varying depth of the deposits, be very uncertain. I remember making an average of the depth, and deducing therefrom a rough estimate that the three small islands alone contain upwards of two hundred and fifty millions of tons of pure guano, which, at the rate of supply which has been going on during the last five or six year, would require about one hundred and eighty years for removal, and at its English value—which, after deducting freight, is about £5 per ton—would be worth twelve hundred and fifty millions sterling. This is exclusive of vast quantities which have been used by the Peruvians themselves."

sheep Husbandry.

We observe in a late paper an account of the extensive sheep husbandry of the brothers Rose, near Penn-Yan, N. Y. On 1,500 acres of land, stocked with over 3,000 sheep, their rotation is three years clover, summer fallow, wheat, and clover (with plaster) for three years again. Such clover, and such wheat—are of course to be expected from this enriching treatment. Their barns are about 30 by 40 feet, and are filled with hay through three successive tier of doors, one above the other,—the hay being put in through the lower first, when they are closed, the next above used. Sheds stand on each side of the barns, made of boarded poles, and with board roofs, open in front, where they are 4 feet high and 5½ feet high at the back. A rack runs the whole length. These barns are conveniently distributed over the farm. They never keep over 100 grown sheep in a flock.

Cattle Show at Northampton.

EDS. CULTIVATOR—Agreeably to your request, I have the pleasure to inform you that the Fair of the Hampden, Franklin and Hampshire Agricultural Society, was held at Northampton on the 5th and 6th of this month, and proved an occasion of unusual interest to the large number of farmers assembled on the occasion.

The show of cattle took place on Tuesday morning, but owing to the protracted drouth, which dried up the pasture and caused the sale of the fattest and finest animals to the butcher, there were but few animals on the ground; it was thought there were four times as many the preceding year. The exhibition of articles of domestic industry at the Town Hall was very fine, and was thought to exceed any former exhibition. The display of fruit was large and of the finest qualities, embracing apples, pears, peaches, grapes, figs, prunes, &c. There were many excellent varieties of potatoes exhibited; one of them, the Lathrop Red, is a new variety which bids fair to be of great value, being nearly as prolific as the Rohan, and very superior to it for the table. The results of an experiment with pear trees were shown, which seems of some importance, and ought to be tried more extensively. Two trees were growing near each other, but both produced very poor fruit; it was small and covered with black knots. Some rusty iron was deposited around the roots of the one, the other being left untouched. The fruit from the tree treated with iron rust, was nearly double the size of the other, free from black knots, and very superior in flavor, while the other tree produced a small inferior fruit, covered with black knots, and not worth picking from the tree.

A great number of fine loaves of bread were exhibited in competition for the premium, by the ladies of these counties, with a receipt for making pinned to each loaf. These, with the exquisite golden butter and rich cheeses in large numbers, formed a very attractive portion of the show. There were a very large number of fowls exhibited, embracing all the varieties; among these I noticed some magnificent specimens of the Chittagongs, and Golden Pheasants. The prevailing opinion of the farmers seemed to be, that these large varieties did not pay as well as some of the smaller kinds. The Creoles or Bolton Greys seemed to unite the greatest number of suffrages in their favor.

On Thursday morning there was a show of horses from half past 8 till half past 10 o'clock, A.M. Some of them were very superior; those of the Morgan breed appeared to be most esteemed in that region.

After the exhibition of horses was concluded, the society marched in procession to the Edwards church, which was filled to overflowing by the farmers. An anthem was sung by the choir; prayer was then offered by Professor Fowler, of Amherst College; after which an address was delivered by JOHN STANTON GOULD, of Hudson, on the culture of Indian corn, in which he attempted to trace the chemical and physiological history of the plant from the deposition of the grain in the earth to the ripened ear—availing himself largely of Mr. SALISBURY'S valuable prize essay, and endeavoring to render that great

repository of facts available for the purposes of the practical farmer.

After the exercises at the church were concluded, the society marched in procession to the Agricultural Hall, where plates were laid for over 400 persons; these were all occupied, and the galleries running round on three sides of the room, were also crowded with spectators. A blessing was asked by Rev. Prof. Fowler, after which the company proceeded to discuss a most capital dinner. Speeches were made by W. O. GORHAM, Esq., Secretary of the Society, Gov. BOUTWELL, EDWARD EVERETT, Lieut. Gov. CUSHMAN, Rev. F. HUNTINGTON, of Boston, and J. S. GOULD of Hudson. The speech of Mr. EVERETT was, like all his speeches, a perfect gem; it not only sustained, but enhanced his reputation. The whole affair was exceedingly well managed, and reflects great credit on the officers of the society, and I believe every one who was present, formed a secret resolution to be again at the fair of the ensuing year. N. N. D.

Construction of Dairies.

It is stated that some of the best dairies in Holstein are constructed and kept as follows, not so much on the grounds of elegance or taste, as of simple profit:—They are half under ground, are dry and not damp—always kept at 60°—the floor made of hard brick, cemented,—and supplied with little channels of water—free from the very semblance of dirt—walls smooth, whitewashed, and no dust allowed to adhere to them—air circulating freely,—the vapor from the milk passing off unobstructedly—the pans placed low down on the floor, and never on shelves—and no bad odor of the slightest nature allowed.

Sale of Devon Cattle.

LUTHER TUCKER, Esq.—I send you a statement of my sales of Devon cattle, at auction, on Wednesday, 25th August last. There were 30 animals offered at auction, of which 29 were sold, at fair prices, taking into consideration the short crop of hay in this vicinity.

Gen. Cadwallader of Philadelphia, purchased 17 head—Col. Watts, of South Carolina, four head, and the Messrs. Jones, of Atlanta, Geo., five head. They were the principal purchasers.

Full blood cows sold for \$75 to \$100—one and two year old heifers, \$75 to \$125—calves from \$35 to \$65.

I have now remaining, about 25 head of thorough-bred animals, principally cows to calve the coming spring, and young bulls. One of my cows, Ruby, for which I was awarded the first premium at the Hartford County Show this month, and the first premium at New-Haven County Show, last fall, made in the month of April last, having dropped her calf in February, one pound 13 ounces of butter per day, equal to nearly 12½ pounds per week. Some of my stock was descended from the bull Champion, awarded the first premium at Utica last month, and now owned by Mr. Colby, of Scipio, whose portrait may be seen in the October number of the Cultivator—he was bred by Mr. Allen, of Black Rock, and sold by him, when a calf with the cow Venus, to R. S. Colt, Esq., of New-Jersey, of whom I purchased when three years old—and used him two years in my herd.

I have kept and bred the different breeds of cattle upon my farm, and am better pleased with the Devons and their grades, than any stock I have ever kept, and think them the most profitable for the New-England farmers.
WM. L. COWLES. *Farmington, Ct., Oct. 8, 1852.*

State and County Fairs.

There are on our table, a large number of reports and lists of premiums awarded at State and County Fairs, which we have not room to publish, or even notice separately. They all agree, however, in placing the exhibitions of the present year in higher rank than those of any previous one. They have been participated in by a larger number of farmers, and with increased spirit and success. Farmers begin to feel that unless they belong to an agricultural society, and raise something suitable for exhibition at its show, they are something less than farmers. It is not so much the worth of the premium offered that induces effort, as the emulation to excel. There is a satisfaction, an honest farmers' pride, in having produced a superior crop, raised a fine animal, or invented a labor saving implement. We look forward with hope, yes confidence, to the time when every farmers' household shall be an agricultural society, forming a tributary to the Town Society, (which we have recommended in another column,) and which, in its turn shall be an auxiliary to the County Societies. These too, come into competition in the Show of the State Society, and thus all work together for the mutual good and a common aim.

Potato Blight.

EDS. CULTIVATOR—On a small patch of ground, [two acres,] I this summer planted the potato, here known as the White Mercer. The sets were put in in rows, and planted about the middle of May. The soil—gravelly clay—had been limed in the fall at the rate of 100 bushels to the acre. When the vines were well up, about the middle of June, I sprinkled plaster and guano along the rows, mixed in due proportions, avoiding to touch the vines with it, and then plowed up to the rows, and finished with the cultivator. The vines grew luxuriantly until the middle of July, when, all at once, they began to wither, and by the middle of August there was scarcely a green vine. I should mention, that in this locality during summer, we suffer much from dry weather. To obviate the effect of this, about first of August I sowed buckwheat broadcast between the rows, to keep in the moisture, and as it were, mulch the tubers. Of course, after this, there was no plowing, but up to this time the potatoes had been kept carefully free from weeds. But then, favored by the buckwheat, the weeds grew with surprising rapidity, and soon covered the field. I determined to let them remain, as to pull them up would have disturbed the tubers.

A week since I determined to dig the potatoes—first mowing down weeds and buckwheat, to get them out of the way. The vines were completely dead, and but for the ridge of the rows, it would have been difficult to find them. The tubers I find not to be one-third size, but still perfectly sound—no rot being discernible in any one of them.

I may farther say that the best seed was planted, large potatoes cut in two or three pieces, and that three years ago, I raised a fine crop on this very ground.

Now, Mr. Editor, I wish to ask you, why these vines of mine died down so suddenly in July, after giving so fair a promise? I cannot make out the cause. Neither can one or two of my neighbors, whose vines were affected in the same way. The soil is dry and needs no draining. They were carefully worked, and the best seed used. I have looked through my agricultural books, but can find nothing on the subject. I have thought it might be a fly or a worm that did the mischief, but unfortunately I had not an opportunity to examine, as, being called away from my farm in the middle of July, I did not return till the end of August, when the mischief was done. I should be pleased to see an explanation of this matter in your magazine—or perhaps some of your contributors can enlighten me?

Would it be safe to use these small potatoes, [stunted I call them,] for seed next spring? Is it possible that I planted them too early for this latitude? or that it might have been an early variety? though they were regular fall seed.

Hoping to hear from you in your next number, I am yours. H. *Trenton, New-Jersey, Oct. 9, 1852.*

The death of the potatoes was undoubtedly caused by the drouth and the too liberal application of guano. The sowing of the buck-wheat was a great mistake, as it absorbed the moisture, which otherwise would have nourished the potatoes, and so increased the drouth. In the summer, the soil is watered to a considerable extent by the dews, which were altogether lost to the potato where the ground was covered by the grain.

Chenango County Fair.

LUTHER TUCKER, Esq.—Thinking that a few facts in relation to the Fair of the Chenango Co. Ag. Society would not come amiss, I attempt a hasty sketch. The Fair was held at Norwich (the county seat.) The grounds contained some six acres, substantially enclosed, and encircled by a nicely graded trotting course one-third of a mile in circumference. At one end was erected a large and commodious building for the exhibition of domestic manufactures, fancy articles, &c. The display in this department, as regards quantity, quality, and arrangement, did honor to the ladies of Chenango. The display of matched and single horses exceeded any ever held, upwards of 60 entries being made in that class. The show of stallions and colts was good. Among those that drew a crowd of admirers was the Boston Belfounder, a very fine horse, owned by H. D. Mead, of Smyrna. He received the first prize in his class.

The show of cattle was large, equaling or exceeding that of Madison, Otsego and Cortland counties. We noticed two very large pairs of stall-fed cattle, one owned by Whitman Willcox, of Norwich, the other by Augusta Ross, of Preston; the latter pair were exhibited at the State Fair at Utica. They weigh some 5,000 lbs. per pair. They are grade Durhams. The Durhams were not very numerous. We noticed one fine bull two years old, owned by William Armsby of Otselic; his color is white; weighed when one year old 1,200 pounds. The

display of Devons was fine. A Devon bull, owned by Mr. Sexton, of Plymouth, attracted considerable attention. He received the second premium on aged Devons at the State Fair at Albany. We also saw a fine herd of full and half bred Devons, owned by J. W. Collins, of Smyrna, of which one calf took the second prize at the State Fair at Utica, one cow, we think, full equal to anything we ever saw, exhibiting better milking properties than any of this breed which has come under our observation. (I was credibly informed that she had given milk every day since two years ago last March, and raised three calves in the time. She is not capable of being dried off.) A fine pair of steers two years old, owned by N. Sexton, half blood Devons, were very large and fine, weighing 2,600 lbs., grass fed. There were several fine lots of French Merino sheep, which argues well for the spread of this useful animal. Two bucks owned by Mr. Hakes, of Pitcher, sheared 50 pounds—one years growth.

The address, delivered by J. T. SAWYER, Esq., of Clinton, was mainly a description of scientific farming. At the conclusion the awards of premiums were read, and a general rush of the lucky ones followed to receive their premiums. Thus ended the 7th Annual Fair of the Chenango County Agricultural Society. Yours truly, AGUSTUS. *Smyrna, Oct. 11, 1852.*

Cayuga County Fair.

L. TUCKER, Esq.—On the 6th and 7th of October, the Annual Fair in our county was held. The weather was clear, warm and pleasant during the show. All stock and articles for exhibition were kept on the ground both days, which gave great satisfaction to all in attendance, and proved highly advantageous to the committees in giving them an opportunity to review everything on the second day. The number of stock of all kinds, and the articles on exhibition, exceeded those of any previous show by more than one-third. It is estimated that over 6,000 persons were in attendance. The show grounds enclosed fifteen acres, and were completely crowded; in short, the space was too limited to accommodate the farmers. I never saw so many happy faces assembled in my life. The farmers seemed in good spirits, and came in full confidence that they were participating in their great jubilee.

This has been a proud show for Cayuga, and tells well for the enterprize of its farmers. It shows that new light has dawned upon them, and new life been infused into them. J. B. DILL. *Auburn, Oct. 9, 1852.*

Reaping Machines.

EDS. CULTIVATOR—I noticed in your article on the trial of implements at Geneva, you seem to place some reapers entirely above others, merely on account of their being geared higher, which I think if you would take the trouble to consider the matter in its true light, you would see at once that a reaper can have too much motion as well as not sufficient. I have used one for several years, and from experience I am satisfied that a reaper, with just motion sufficient to clear itself at a slow walk, is all that is required to have it do good work, and any motion faster than that causes it to wear out faster and

creates more friction, and makes it much more liable to break and get out of order; and if a farmer, using a reaper, wishes to cut 15 or 20 acres of grain per day, he is necessarily obliged to drive his team faster than he would to a plow or drag in order to get over the ground. With one of Hussey's Baltimore Reapers, that has nearly one-third less motion than Hussey's, built at Auburn, I have never found any trouble in cutting any kind of grain at the slowest gait I might cause my team to walk. A FARMER. *Cayuga Co., N. Y., Sept., 1852.*

Deep Plowing.

The present season of severe drouth, has most distinctly illustrated the benefits of deep plowing. We planted a quantity of apple seeds on ground which was last autumn an old pasture, and which was inverted with a double Michigan plow of the largest size, drawn by three yoke of oxen, to the depth of eleven and a half inches, actual average measurement. On such soils as this, as commonly plowed, apple seedlings usually suffer by drouth, but the present severe season, they have continued growing without the least check, through the whole summer, and are now much larger than usual under ordinary treatment.

The Granite Farmer states that fields tilled only to a depth of six or seven inches have suffered severely, while on others, side by side, the crops do not feel the drouth at all. In one place was a field of corn, of a yellowish green, and with leaves rolled by thirst; while separated only by a single step, was another portion at least a foot taller, with a deep green, broad, and uncurled leaf. Yet the manure was the same, the seed the same, and the culture the same. On asking an explanation, he learned that this was the result of the first experiment in sub-soil plowing.

Construction of Ice Houses.

EDS. CULTIVATOR—Your correspondent, R. R. Wright, of Philadelphia, asks information as to the best construction of a family ice house. If you see fit you may give him that of mine, in which I now have ice that was put there nearly five years ago, the annual supply having been added to that nucleus.

My ice house is ten feet cube, six feet below, to four feet above the surface, on the average; on a side-hill declining to the north-east, the ordinary entrance being at that end—that for filling opposite.

I excavated the earth, placed four posts 10 feet long and 10 inches square—lined the outside and inside with two inch plank; filled the space between with tan-bark. Made a double roof by nailing inch boards above and below four inch rafters, and filled the space with straw, shingling the outside, the roof being at a half pitch, and projecting 18 inches on all sides. In the center of the roof, and elevated above, is a ventilator eight inches square. I had an open drain leading from the bottom, where I laid my sleepers, of ordinary fence posts, covered with loose boards, in order that any liquid may freely run off, a very important point in the construction of any ice house.

In filling my ice house, I am particular to have all interstices well filled at every layer of ice, with well bro-

ken pieces, and prefer the *coldest weather* to pack in—a matter more important than *thickness* of ice. While packing, and when full, I throw large quantities of well water, at the lowest possible temperature, over the ice, *on very cold nights*, leaving front and rear doors open. I cover about middle of March with plenty of shavings, which I regard as altogether preferable to straw or sawdust, especially the former, which I would never use. During the summer I see that the shavings are thrust down at the sides where ice melts.

My ice house is shaded by a building in the rear, and trees at the sides.

I have supplied friends with ice, when every other ice house in the city had given out. H. M. "Greenvale Farm," Oswego, Sept. 24, 1852.

State Fairs.

OHIO.—The fair at Cleveland, on the 15th, 16th and 17th Sept., eclipses all previous triumphs, and shows to a demonstration that Ohio is determined on not being beaten. The amount received for entries and admissions was \$13,230.50, and the number in attendance is estimated at from 60,000 to 70,000. There were 375 entries of cattle, 175 of horses, and 200 of sheep. The number of animals on exhibition was, however, much larger, as lots were registered as a single entry. The show of Fine Arts, Manufactured articles, Dairy Products and Agricultural Implements was fine, and much more extensive than ever before. In enterprise and spirited resolution, the farmers of Ohio are eminent.

MICHIGAN.—The Fourth Annual Fair was held at Detroit, on the 22nd, 23rd and 24th of Sept. The Michigan Farmer says of it, "the present show has proved a very auspicious and promising one for the Agricultural interests of the State. There was a marked improvement throughout; especially noticeable in the grade cattle, in horses, and in the department of domestic manufactures." The address was delivered by JUSTUS GAGE, Esq., and though of a general nature, is practical, well written, and full of timely suggestions.

NEW-HAMPSHIRE.—The Third Annual Fair was held at Meredith Bridge, on the 6th and 7th Oct., and was creditable to the Granite State. The Granite Farmer, in summing up its description of the show, remarks: "The exhibition as a whole, can hardly be said to have advanced from the last year. In the stock and fruit department, there was a decided advance, but in other departments, a failure to come up to last year's standard was observed."

THE CANADA FAIR.—The annual fair of the Provincial Agricultural Association was held at Toronto, from the 21st of September, continuing four days. In the show of stock, the Durhams predominated. A small herd of West Highland cattle, imported from Scotland, were attractive as curiosities. The agricultural productions were well represented, and are spoken of as very superior. The number of competitors for premiums was large and the fair well attended. In the department of Horticulture, accessions were received from Western New-York, and agricultural implements of American manufacture were shown. The address of the president, T. C. STREET, Esq. is complimented in high terms.

American Figs.

The Working Farmer gives the following mode of preparing these, as exhibited by Charles Downing of Newburgh. Other fruits we have known to be successfully dried in a similar way.

"The peaches were first peeled, then cut in halves, the stones removed; next placed on plates, with their hollow sides up, and containing one-sixth of their weight of sugar.

"After having been sufficiently dried in the oven, they are stowed away in jars or boxes, like figs, the texture of which they materially resemble, while their flavor is entirely superior. They may be swollen by water, and used for pies, tarts, &c., and are very superior in quality to the ordinary dried peaches."

Shoulder-slip in Horses.

Shoulder-slip consists of a rupture, and subsequent wasting of the fleshy fibres composing those muscles which lie outside the shoulder blade, and pass from it to the upper arm bone below. In a healthy condition, the action of these muscles consists in moving the arm bone backwards and forwards, and in keeping its upper end or head in connection with the body when weight falls upon the shoulder joint. The fleshy substance of the muscles is attached to sinews which pass outside of the joint, and add materially to its strength and security, but all motion in the sinews is promoted by muscular or fleshy contraction. If an injury (such as a strain, for instance) should lacerate the fleshy fibres, they cannot, of course, determine any action to their sinews, and the latter become so lax as not to retain the shoulder bones in their natural position during motion; the head of the upper arm bone, in short, slips outward from under the weight, which, if its fleshy and tendinous relations were intact, it would support, and still keep its own proper situation. This rupture of muscular fibres is accompanied by wasting of the fibres themselves; this process is frequently observed in the animal frame, and occurs in parts which are from any cause deprived of their usual functions. The affected shoulder, under the disease in question, becomes consequently much diminished in size, and the wasting being for the most part confined to muscles outside the shoulder blade, the outline of this bone may sometimes be visibly seen. The outward rolling motion of the shoulder joint is greatest when the horse is going down hill, and is sometimes so excessive in a trotting gate, that the animal seems in danger of falling. If sufficient time be allowed, and the horse not put to work too soon, he will usually recover from this affection. Months are sometimes required to ensure complete restoration, and in addition to the rest needed, much benefit is derived from an occasional application of blisters to the whole outer surface covering the shoulder blade, and shoulder joint. Dr. DICK in *North British Agriculturist*.

STRIPED BUGS AND CURCULIO. — Wm. H. Ludlow states in the Working Farmer, that he is uniformly successful in repelling the curculio, by throwing plaster of Paris over the trees just after a shower, or while the dew is yet on. A sprinkling of plaster he says forms a complete protection against the striped bug. These remedies are easily tried, and a possibility of success should induce any one to make the experiment.

THE TOMATO.—It is said that this fruit, which is of very modern introduction into our gardens, has been in long use by the French and Italians—and that among the old French settlers, on the banks of the Kaskaskia, in Illinois, it has been cultivated and used for more than fifty years.

Fowler's Draining-Plow.

One of the most complete inventions of modern times, is the new English Draining-plow, for the annexed engraving, of which we are indebted to B. P. JOHNSON, Esq. Two horses work at one side of a field at a capstan, and by an almost invisible wire rope, gradually draw towards it a low frame work. Beneath this frame work, extends downwards three or four feet, a strong coulter, at the bottom of which is a metallic plug, which moving forwards, forms a horizontal hole through the sub-soil. To the back end of the plug is attached a rope, on which tubular tile has been strung; thus the tile are drawn in and fitted to the drain thus formed, as fast as the frame-work moves forward. The only trace left on the surface of the field is a narrow slit made by the coulter, while an invisible drain has been formed under the feet. Hence, the operation of draining may be performed without injury to any short crop which may be upon the field. When the surface is undulating, a most ingenious contrivance preserves a perfectly straight and uniform slope to the drain. The coulter is worked up and down by the man who stands on the frame, by means of a screw and wheel, (like the brake-wheel on a rail-car,) his eye being guided by a try-sight on the frame, and a cross-staff at the end of the field. Drains forty rods long are completed at one operation; strings of pipe, each 50 ft. long being successively added, and when done, the whole rope is withdrawn. Pusey's late report on this machine, published in the Journal of the Royal Agricultural Society, is quite favorable. It has been fully proved that in suitable land, the cost of draining need not be more than 30 English shillings per acre, or one-half the usual expense, and about one-third the expense in this country where labor is more costly.

Hon. Horatio Seymour's Address

At the State Fair at Utica, 1852.

After alluding to local associations, which render memorable the place of the Fair, the orator divided the history of farming into two eras, that of the axe, and that of commercial farming. He spoke in terms of the highest eulogium of the heroic spirit which characterised the pioneer settlers of the country, of the toil and privation they endured, and of the rich legacy they left their more favored descendants.

Speaking of the present age, he says,

"The extension of facilities for conveying the productions of our soil to the markets of our own country, and those of the commercial world, has not only enlarged the area of agricultural pursuits, but by giving to our farmers an unlimited cash market, has also made essential to success certain principles which would have been injurious during the period I have described. It involves many considerations of great interest and value, and deeply affecting the social and economical conduct of agricultural labor. At an early period, "production for self consumption," was the leading purpose; now, no farmer would find it profitable "to do everything within himself." He now sells for money, and it is his interest to buy with money every article that he cannot produce cheaper than he can buy. He cannot afford to make at home his clothing, his furniture, or his farming utensils; he buys many articles for consumption for his table. He produces that which he can raise and sell to the best advantage, and he is in a situation to buy all that he can purchase cheaper than he can produce. Time and labor

Fowler's Draining Plow.



have become cash articles, and he neither lends nor barterers them. His farm does not now merely afford him a subsistence; it produces capital, and therefore demands the expenditure of capital for its improvement.

"An extended cash market also enables him to simplify his processes. He can now take advantage of the principle which lies at the foundation of success in commercial and manufacturing pursuits, of "doing one thing, and doing it extensively and well."

Confining his attention to one subject from year to year, he becomes skilled in his peculiar pursuits, and methodizes and cheapens his processes. Informed with regard to the markets, he learns to follow his productions into the open markets of the world; trace them, perhaps, to the shores of Europe, and thus is led to inform himself more thoroughly in relation to the principles of commerce, the laws of trade, and the tastes and habits of his customers.

The world has never been so highly Commercial as it is at this time; never has intercourse between the nations of the Earth been on so vast a scale; and the farmers of New-York, by the instrumentality of railroads, canals and steamships, are brought within its vortex. The tendency of this is not only to disseminate intelligence, but it renders varied information indispensable. The affairs of the whole commercial world blend themselves with our Agriculture and give to this pursuit a scope and relationship that demand and produce varied intelligence; men enlarge their capacities and improve with their pursuits. The circle of the farmer's dealings is not now limited to his neighbors and the next merchant; it is extending itself into all quarters of the globe.

"In the great struggle which is going on among the nations of the earth for commercial supremacy, the farmers of this country are to bear an important part. They furnish the freights which send our vessels into every quarter of the globe; their pursuit is of the highest and first necessity to all other departments of business; if it languishes they suffer; and if it prosper, they are successful. The increased intercourse among nations, the modifications of revenue laws, and improvement of ships, and the introduction of steam upon the ocean, have brought us into close competition with Europe. Interest, pride and patriotism make us view the result with deep solicitude. How are we prepared for the contest? In estimating ourselves we must not fall into the common error of comparing ourselves with what we were.

"The world will not permit us to be judged by such standards. We have arrived at that condition when we cannot, with self-respect, ask any allowances in our favor. The stern question now to be met is not what we are, or shall be, in comparison with the past; but what we ought to be with our present opportunities.

"General prosperity, or that of classes, is the result wrought out by the efforts of the people, directed by an intelligent public sentiment. Yet we all influence this sentiment, and the workings of each individual mind constitutes a part of its volume. It has frequently been changed by one man's efforts. It is constantly influenced by those who boldly and manfully address themselves to the duty of advocating truth or combatting errors. Engaged in designs of usefulness or benevolence, we may all, by the exercise of energy and perseverance, wield it as an instrument to effect our ends. Would you render your beautiful hills and valleys still more attractive and productive, clothing them with a rich verdure and ornamenting them with tasteful abodes and sylvan adornments of shrubs and trees, animate your agriculturist by holding his manly and noble pursuit in proper estimation. Would you become a wealthy community, and do you desire to introduce among you the products of mechanical skill? Arouse the public interest and put forth the efforts, and the living streams of your hills, converted to means of service, will in the morning leap forth to their labors, and in the evening glide on to their rest. Does a more lofty ambition influence you? Would you diffuse around you the blessings of Education? Would you fill the mind of Man with constant objects of thought and reflection; would you give a new interest to everything around him, (for when you educate a man, you open the eyes of the blind) by calling his attention to all the wonders and beauties of the vegetable world, and teaching to investigate and ponder over Nature's endless variety and strange processes; or arouse his faculties to the utmost stretch of their powers by calling upon him to measure the orbits of other worlds to compute their distances and to conceive their sizes; or startle him by pointing out the traces in your hills and mountains inclosed within the strata of enduring rocks as within the leaves of a mighty record, showing the former convulsions of our earth; that it has been moulten with raging fires, swept with great floods, and has been the abode of monsters more vast than the most morbid imagination had conceived? Would you store his mind with all these wonders, elevate his conceptions, endow him with wealth not subject to fickle Fortune's changes? Give to Learning its appropriate honors. Let the value of education and learning be properly estimated, and we shall not regard them merely

as means by which we shall be rendered successful as farmers, mechanics or professional men; but while they will render these pursuits successful, they will lead us to regard them as means, not ends; as paths which we tread in compliance with the divine fiat which makes the journey of life one of labor, but which we also may make a road of self-improvement and public usefulness.

"If we reflect upon the prospects of our own great State, we shall see that the present is an era in the history of its progress; a point of time from which we shall have to contend with intelligent zeal for the preservation of present advantages, and for the promotion of its great interests."

Referring to the bearing of science on Agriculture, he makes the following just remarks:

I think the advances which are made, are much greater than we suppose. Scientific knowledge, when it comes forth from the laboratory or study, is clothed with a nomenclature so stiff and forbidding that it is somewhat repulsive; but by the aid of popular discourses, Agricultural Societies, and, above all, of the Press, it is gradually popularized, expressed in more familiar terms, and becomes a part of that general intelligence we all possess.

After speaking of the natural advantages of the State of New-York, the necessity for increased skill and attention on the part of the farmer, and the importance of the diffusion of learning, he concluded with the following:

"However great our natural or acquired advantages, they alone will not sustain us against foreign or domestic competition; but reliance must be placed only upon the intelligence and industry of the cultivators of the soil, and, above all, that success in this pursuit, as in all others, depends, in a great degree, upon the estimation in which this most noble and important occupation is held by themselves and the community at large. It is this last consideration that has induced the officers and members of the Society to devote themselves to its concerns, and to the toil incident to such exhibitions as those we see around us. They feel that it has been true at all times, in all conditions of society, that those pursuits are successfully prosecuted which are held in high esteem by society at large. It is to manifest this regard that the Executive of our State, its public officers, and other distinguished men from all parts of our country, try, have attended on this occasion. It is this consideration that has induced me to appear before you to-day, conscious of my inability to instruct this audience on the processes of farming, although I am somewhat engaged in its concerns, to make the remarks I have submitted to you.

"They may be unsound and valueless, but they are offered as a tribute to the importance, the dignity and value of the Farmer's occupation."

Points of a good Hog.

I could caution the reader against being led away by a mere name, in his selection of a hog. A hog may be called a Berkshire or a Suffolk, or any other breed most in estimation, and yet may in reality possess none of this valuable blood. The only sure mode by which the buyer will be able to avoid impositions is, to make name always secondary to points. If you find a hog possessed of such points of form as are calculated to insure early maturity, and facility of taking flesh, you need care little what it has seemed good to the seller to call him; and remember that no name can bestow value upon an animal deficient in the qualities to which I have alluded. The true Berkshire—that possesses a dash of the Chinese and Neapolitan varieties—comes, perhaps, nearer to the desired standard than any other. The chief points which characterize such a hog are the following: In the first place, sufficient depth of carcass, and such an elongation of body as will insure a sufficient lateral expansion. Let the loin and chest be broad. The breadth of the former denotes good room for the play of the lungs, and a consequent free and healthy circulation, essential to the thriving or fattening of any ani-

mal. The bone should be small and the joints fine—nothing is more indicative of high breeding than, this; and the legs should be no longer than, when fully fat, would just prevent the animal's belly from trailing upon the ground. The leg is the least profitable portion of the hog, and we require no more of it than is absolutely necessary for the rest. See that the feet be firm and sound; that the toes lie well together, and press straightly upon the ground; as also, that the claws are even, upright, and healthy. Many say that the form of the head is of little or no consequence, and that a good hog may have an ugly head; but I regard the head of all animals as one of the very principal points in which pure or impure breeding will be the most obviously indicated. A highbred animal will invariably be found to arrive more speedily to maturity, to take flesh earlier, and with greater facility, and, altogether, to turn out more profitably, than one of questionable or impure stock; and such being the case, I consider that the head of the hog is, by no means, a point to be overlooked by the purchaser. The description of head most likely to promise, or rather to be concomitant of, high breeding, is one not carrying heavy bone, not too flat on the forehead or possessing a too elongated snout—the snout should be short, and the forehead rather convex, curving upward; and the ear should be, while pendulous, inclining somewhat forward, and, at the same time, light and thin. Nor should the buyer pass over even the carriage of a pig. If this be dull, heavy, and dejected, reject him, on suspicion of ill-health, if not of some concealed disorder actually existing, or just about to break forth; and there cannot be a more unfavorable symptom than a hang-down, slouching head. Of course, a fat hog for slaughter, or a sow heavy with young, has not much sprightliness of deportment.

Nor is color altogether to be lost sight of. In the case of hogs I would prefer those colors which are characteristic of our most esteemed breeds. If the hair be scant, I would look for black, as denoting connection with the Neapolitan; but if too bare of hair, I would be disposed to apprehend too immediate alliance with that variety, and a consequent want of hardihood, that, however unimportant, if pork be the object, renders such animals hazardous speculations as stores, from their extreme susceptibility to cold, and consequent liability to disease. If white, and not too small, I would like them as exhibiting connection with the Chinese. If light or sandy, or red with black marks, I would recognize our favorite Berkshire; and so on, with reference to every possible variety of hue. These observations may appear trivial; but they are the most important I have yet made, and the pig buyer will find his account in attending to them.

—*Rural Hand Book.*

On the Joint Worm.

In our volume of last year (p. 321) we published a letter from ALEX. RIVES, Esq., of Virginia, giving an account of the ravages of the "Joint Worm," on the wheat crops of that State, together with a letter from Dr. ASA FITCH, of Salem, giving his views in relation to the character of the insect. In the last *Southern Planter*, we find the following letter, on the same subject, from Dr. HARRIS, of Cambridge:

The peculiar disease now affecting wheat in Virginia, seems to be of the same nature as that which attacked barley in Massachusetts above twenty-five years ago. This disease consists of hard, woody, gall-like tumors on the stem of the plant situated mostly in the sheathing bases of the lower leaves, or in the second or the third joint, more rarely in the substance of the stem itself. On being opened, these tumors are found to contain several little yellowish white maggots, called joint worms in Virginia, each lodged in a separate cell rather larger than its own body. These tumors, by their pressure and hardness, obstruct the circulation, obliterate the hollow of the stem, and prevent its due development, thereby greatly reducing the amount of the crop. The greater

part of the maggots remain unchanged in the tumors through the winter, and in the following months of May and June are transformed to tiny, blackish, four-winged flies, belonging to the genus *Eurytoma*. Prof. Cabell has ascertained that a very few undergo this change during the first summer. When first observed in Massachusetts, these insects were supposed to be parasites, in accordance with the known habits and history of others belonging to the same family; and it was thought that the real culprits would be found to be some species of *Cecidomyia*, or small flies resembling the Hessian fly and the wheat fly. Hitherto, however, no species of *Cecidomyia* has been obtained from the diseased barley straw in Massachusetts, or from the diseased wheat straw of Virginia. On the contrary, both, in repeated instances, have furnished large numbers of the same kind of *Eurytoma*. If, then, this insect be the sole cause of the disease, as Prof. Cabell and others are inclined to believe, it becomes important to consider whether the history of the insect will suggest any means for diminishing or arresting its ravages.

As the disease is seated near the base of the straw, in or near the second or third joint, the greater part of the diseased portions will be left in the stubble when the grain is reaped. This fact has been noticed in barley fields in Massachusetts, and doubtless occurs also in the wheat fields of Virginia. Most of the insects remain unchanged in the stubble till the following year. If, then, we can destroy the maggots remaining in the stubble in the field, before they have completed their transformations and made their escape, we shall, in great measure, restrain their further propagation and increase; for it is in the winged state that insects propagate their kind. It has been found in Massachusetts, that plowing in the stubble has no effect upon the insects, which remain uninjured under the slight covering of earth, and easily make their way to the surface when they have completed their transformations. The only practicable way of destroying the insects, is to burn the stubble containing them. Some few may complete their transformations and take wing during the first summer, before the grain is reaped, and will thereby escape being burnt with the stubble; and these, if allowed to increase, will suffice to continue their race. The remedy suggested, to be successful, must be followed up in several successive years, and if generally adopted, and thoroughly and carefully employed, cannot fail to exterminate the *Eurytoma*.

Highly manured and thoroughly tilled fields, by promoting a rapid and vigorous growth of the plant, may render it less liable to suffer from the attacks of the insect. Large fields, well seeded, will probably escape better than those that are smaller and thinner sown, in which the insects, when about to lay their eggs, can penetrate easily and to a greater extent. THADDEUS WILLIAM HARRIS, M.D. Cambridge, Mass., Aug. 18, 1852.

Agriculture of Jefferson County.

We have been favored with the Address of J. A. SHERMAN, Esq., President of the Jefferson Co. (N. Y.) Ag. Society, at its late Fair, together with the report of the viewing committee, from which we make the following extracts:

PRODUCTS OF JEFFERSON COUNTY.—A half century has now passed since the pioneers of our county first trod upon its fertile soil, and the sound of the white man's axe first echoed through its then dark and wilderness forests. Comparatively, few of those early settlers are left among us; they were our fathers and our forefathers, our mothers, our brothers and our sisters. They prepared this wide and fertile field, and we are left to reap and enjoy its harvest. Yes, gentlemen, through your hardships, toils, and privations, through your energy and perseverance, by the labor of your hands and from the sweat of your brows have those unbroken forests been changed into fruitful fields and smiling meadows. The seven hundred and thirty-three thousand acres which comprise the limits of our county, now contain some

seventy thousand inhabitants, and the valuation of its real and personal estate amounts to *over twenty millions* of dollars. Upon its green pastures now feed some eighty thousand head of cattle, 16,000 horses, 60,000 sheep, and the yearly production of her dairies amounts to some eight million lbs. in very nearly equal quantities of each, which at an average rate of sales, say 6c. for cheese and 16c. for butter, would amount to the sum of \$880,000.

From her golden harvests are annually gathered some 280,000 bushels of wheat, 70,000 of rye, 370,000 of Indian corn, 450,000 of oats, 230,000 of barley, 180,000 of peas and beans, and some 150,000 tons of hay. Thus, gentlemen, in the short space of fifty years has been changed a wilderness country, inhabited only by the uncivilized red man and wild beast of the forest, to one of the most productive in agriculture, and exceeding in the number of her farmers by some two thousand any other county in the entire State. Through her towns and flourishing villages are erected some four hundred district school houses and academies, where, the youth of our county are taught the first rudiments of learning, also the more advanced through the higher branches of a common education. The fostering and promotion of those institutions, gentlemen, should be our glory and our pride; they are the nurseries of patriotism, and the very fortress of our liberties.—*Mr. Sherman's Address.*

CULTIVATION OF THE CRANBERRY.—It is believed to be in keeping with the objects of this society, to encourage new enterprizes, that open new fields of labor, and promise new sources of profit to the active industry of the County. In accordance with these views, your committee would recommend to the favorable consideration of the society the cultivation of the low Cranberry. Our attention was directed to the subject by the examination of a small platt of this fruit, planted by Mr. David Grummond, of Adams. This experiment of Mr. Grummond, appears to be entirely successful, and seems to indicate that the Cranberry may be cultivated successfully in our climate, and we see no reason why this may not be so, as the plant is indigenous to the county, and is found growing spontaneously on some of the low lands bordering the lake. This fruit sells readily in the markets of the Atlantic cities, and cannot fail to be a source of profit to him who succeeds in its cultivation. The swamps and marshes of the county which are now of but little or no value, are undoubtedly the best adapted to its culture, and by the means of this fruit may be the most profitable portion of our land, and as there are other experiments in the county in the process of development, your committee, with a view to their encouragement, would suggest the propriety of offering a premium next year, for the most successful experiment in the cultivation of this fruit.—*Report of V. Com.*

LARGE POULTRY ESTABLISHMENT.—Under the head of new enterprizes, your committee would call the attention of the society to the aviary of Mr. Orville Hungerford, located in the town Hounsfield. Mr. Hungerford has enclosed ten acres of land with a strong picket fence, and erected buildings and other fixtures on the premises for the accommodation of five thousand hens, at a cost of three thousand dollars. These buildings are divided into rooms for the accommodation of his birds, suited to their various wants, the whole to be raised by artificial means to the temperature of summer heat during the winter. Your committee possess no data on which to base an opinion of the probable profits of the establishment and can only hope that, as it is desirable to multiply the ways and means for the consumption of the coarser grains grown in the county without submitting them to the process of distillation, it will prove a source of profit to its enterprising founder, and that it will not long remain the only establishment of the kind found in the county.—*Id.*

RAPID GROWTH OF A CUCUMBER.—Hovey's Magazine gives an experiment performed by J. McDonald, in Florida, by planting cucumber seed in hills manured with poudrette. From one plant, *six dozen* cucumbers were cut at one gathering.

Sale of Imported Cattle—Great Prices.

The sale of the Scioto Importing Company's cattle, advertised in our last paper, took place at Chillicothe, according to appointment, on the 7th inst.; and for the number, wealth and spirit of the bidders and the high prices obtained for the animals, we doubt whether this sale has ever been equalled in the United States.

Animals sold, price, and names of purchasers.

Nobleman—20 months, \$2,510, J. Vanmeter, Pike co.
Master Bellville—2 yrs, \$2,210, Geo. Renick, sr., Ross co.
Lord Nelson—2 years, \$1,825, J. L. Myers, Fayette co.
Alderman—3 years, \$1,100, A. Waddle, Clark co.
Gamboy—20 months, \$1,400, M. Sullivan, Frank co.
Count Fathom—14 months, \$2,175, N. Perrill, Clinton co.
Young Whittington—11 months, \$450, A. Watts, Ross co.
Rising Sun—8 months, \$1,300, G. W. Herroldth, Scioto co.
Isa: c—2 years, \$600, G. W. Gregg, Pickaway co.
Moss Rose—(cows) 6 years, \$1,200, A. Waddle, Clark co.
Strawberry—4 years, \$1,000, G. W. Renick, Ross co.
Raspberry—2 years, \$1,100, G. W. Gregg, Pick. co.
Sunrise—3 years, \$1,230, J. I. Vanmeter, Pike co.
Mary—2 years, \$1,650, Alex. Waddle, Clark co.
Enchantress—2 years, \$900, Alex. Renick, Ross co.
Blue Bonnett—2 years, \$1,225, Felix W. Renick, Pick. co.

The foregoing embrace all of the recent importation, except one young bull (Adam) not recovered from the effects of the voyage, and which is to be sold within 30 days. It is at the farm of M. L. Sullivan, near this city. The sixteen animals sold amount to \$21,885—averaging \$1,367 each; and as several were injured or otherwise defective, and a majority not half grown, it must be admitted that the prices obtained are without a parallel.

It is true that a majority of the purchasers are shareholders of the company, and consequently interested in the sales, but we are assured that most of the animals could have been sold almost as high to persons not members of the company, and no stockholder was under any obligation to purchase in order to obtain his full share of the proceeds.

A number of bidders were present from Kentucky, and also from distant parts of Ohio, but the prices went entirely above their ideas. All the purchasers are residents of the territory embraced in the Scioto Valley. Each of the individuals named as purchasers is the representative of a company of neighbors clubbed together for the purpose, except Mr. Sullivan, and perhaps one or two others.—*Ohio Cult.*

Superphosphate of Lime, &c.

EDS. CULTIVATOR.—My object in writing at this time, is to obtain information through the columns of the Cultivator, if any of your subscribers have had experience in the practical use of the superphosphate of lime, as prepared by Professor Mapes or Deburg, as a top-dressing for meadows, and also as applied to corn. Any information, with regard to the use of this manure, and the probable or exact amount of increase in either or both the above named crops, will be most thankfully received by at least one of your subscribers.

Also, where a good machine for sowing plaster can be obtained, and the price, (which, by the way, I wonder all manufacturers and others advertising implements, &c., for sale, do not give.) If advertisers would invariably give the prices of their wares, it would save a deal of trouble, and secure them many sales which they otherwise lose. Yours, &c., ENQUIRER. *Richfield Springs, Oct., 1852.*

QUANTITY OF CATTLE FOOD.—It is found by experience that the food of healthy oxen, of whatever size, is nearly one-fifth of their own weight of turneps daily, or about one-fiftieth of their weight of hay, straw, or other dried food. So says Finlay Dan, of Scotland, and he received a gold medal for his paper on this subject.

Diseases of Plants.

The Farmer's Magazine for October, contains an article on this subject, from which we condense the following:

All we really know is this: Plants are, the more we grow them, and the greater the produce of them, more and more liable to disease. The principle is one somewhat difficult to understand, to those who have narrow views of the operations of nature; but to those who look at things more as they are, it is a part of a great plan—a link in the chain of causation, perfectly explicable. An analogy to diseases in plants may be found in a crowded city. It is always a conglomeration of disease and death. In prisons, hospitals and penitentiaries, a disease trifling in an isolated home, may become dangerous and run into epidemics; to the crowding of luxuriant plants and high cultivation renders them liable to disease.

The potato is a most striking case in point. It is by cultivation carried away from its natural wildness, till it becomes almost another kind of plant. In Peru, its native country, it is found not more than three inches high, with large flowers, and tubers the size of a hazel nut. Now, by cultivation, the flowers become insignificant; the stem increases in size, and the tubers enlarged to a weight of sometimes three or four pounds, and instead of a straggling plant here and there, thousands of acres are covered with the plant, to the exclusion of almost every other. Nature revolts at this overpeopling with rank potatoes. Some weakness of the plants; some atmospheric cause dissolves the vital power, which holds the chemical particles together; and we have dissolution and decay irremediable.

Take the vine, carried by man from its native wildness, clustered together in fields, nay in forests, excited by manure, protected by glass, pruned by science, so as to increase the juicy fruit nearly six times; it shows revolt by this forcing, and a vast disease has destroyed the fruit, and threatens to be the death of the vines themselves. It is the cholera of the crowded vinery, as much as the plague ever visited Hull, or Leeds, or London.

A disease is now very prevalent in turneps. On the best turnep soils, with the highest of farming, and with plants absolutely the most promising, a flag in the leaves is discovered some sunny day, and by and bye the plants wither and die; they are first a mass of thickened and carbuncled roots, and then an accumulation of disgusting corruption, while weeds, triumphing over this death of the race which had displaced them, seem to run riot on the death of the turnep.

What we wish to urge is, that all investigations be carried on in a large spirit, not looking merely at a particular crop attacked with a peculiar disease, but inquire if all our cultivated crops are not more liable to some disease than they were. Whether it is a cause or effect we know not, but we mean that this spirit should animate those who seek for information.

To transplant evergreens, one point attended to will result in success—neglected, in failure—this is, removing plenty of earth with the roots.

Banking round young trees a foot high in autumn is an infallible remedy against mice.

Mr. Vail's Cattle Sale.

The public sale of Mr. VAIL's fine herd of Durham cattle, took place at his farm near Troy, on the 18th of last month. Though the attendance was not large, the bidding was more spirited, and the prices averaged much higher than at any previous sale ever held in the State, as will be seen by the annexed list:

1. Yarm Lass, 3½ years, Messrs. Reber & Co., Ohio,	\$670
2. Yorkshire Countess, 2½ years, do. do.	580
3. Yorkshire Countess 2nd, calf, Capt. A. Root, Ohio,	315
4. Hilpa 1st, 12 years, Messrs. Reber & Co., Ohio,	320
5. Hilpa 2nd, 4 years, Gen. Geo. Cadwallader, Phil.,	260
6. Hilpa 3rd, 2 years, do. do.	360
7. Hilpa 5th, calf, Capt. A. Root, Ohio,	260
8. Lady Barrington 5th, 4 years, Gen. Geo. Cadwallader, Phil.	320
9. Lady Barrington 7th, 1 year, H. & R. M. Watts, M. P., Canada,	240
10. Butter Cup 2nd, 5 years, Mr. O'Hara, Madison co., N. Y.,	200
11. Betty, 7 years, Gen. Cadwallader, Phil.,	150
12. Betty 2nd, 4 years, Mr. D. A. Baker, Ohio,	110
13. Betty 3d, 3 years, calf, Gen. Geo. Cadwallader, Phil.,	75
14. Bellflower, 13 years, T. S. Halton, Vt.,	75
15. Laura 2nd, 3½ years, Mr. H. Parsons, Canada,	125
16. Laura 3d, calf, Richard H. Dulany, Esq., (from the South,)	100
17. Cherry, 7 years, Wm. K. Gaston, Esq., New-Jersey,	100
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19. Esterville 4th, 2 years, Messrs. Reber & Co., Ohio,	405
20. Willey 7th, 5 years, O. Slate, Jun. Esq., N. Y.,	260
21. Willey 8th, 2 years, Gen. Geo. Cadwallader, Phil.,	160
22. Lady Ann, 2 years, H. Parsons, Esq., Canada,	130
23. Weldham, 6th, 2 years, Hon. Adam Ferguson, Canada,	275
24. Eunice 4th, 4 years, Mr. D. A. Baker, Ohio,	125
25. Eunice 5th, ½ year, Harvey Ingersoll, Esq., Phil.,	120
26. Aurora 2d, 9 years, do do.	90
27. Aurora 3d, 4 years, Giles Boulton,	65
28. Aurora 5th, calf, Richard H. Dulany, Esq., (South,)	80
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30. Cherry 4th, 1 year, Capt. A. Root, Ohio,	75
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33. Blossom, passed, not sold.	
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35. Lilack 3d, 4 years, Or. Slate, Jun. Esq., N. Y.,	80
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52. Trafalgar, calf, H. Morris Esq., Westchester, N. Y.,	110
53. Blanch Rose, 3 years, H. Morris, Esq., do.	76
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59. Lilack 4th, calf, Gen. Geo. Cadwallader, Philadelphia,	50
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The following are perhaps the best. Imperial Gage, Lombard, Smith's Orleans, Cruger's Scarlet, Lawrence Gage, German Prune.

THE PEAR, sent us for a name by "R. H.," Auriesville, was the *Gansel's Bergamot*.

EARLY POTATOES.—L. B. The best early potatoe for general culture grown in this vicinity, is the "Mountain Junes." It is both good and productive. They can now be had for 50 cents per bushel.

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MESSRS. EDITORS.—Will you please inform your readers whether the presence of a *top-knot* is evidence of impurity of blood in *Dorking* fowls? I have a beautiful yard of chickens of that variety, bred with great care, from stock of supposed purity of blood; and I notice that many of them show a small tuft of feathers on the head. I am unwilling to furnish any of them to my friends as pure blood, if they are not so. A SUBSCRIBER.

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PARISIAN SIGHTS AND FRENCH PRINCIPLES. Harper & Brothers, New-York.

This book admits one into French houses, and shows up their social and private life, as seen through "American spectacles."

There are some interesting pictures of society, to say nothing of strangely grotesque vagaries, which could occur nowhere else than in Paris. French principles are characterised by general infidelity, or only a negative belief. This is why France is so unstable—she derides a great many opinions that she considers false, but recognises very few as true. The volume is a desirable one, and only censurable on the ground that "familiarity breeds contempt."

HARPER'S MAGAZINE FOR OCTOBER, presents its usual array of good reading and fine illustrations. The series of articles on the Holy land, by JACOB ABBOTT, are deeply interesting and instructive. There are no better specimens of metaphysical and moral essays extant than those which appear in the Editors' Table. Its monthly edition is 100,000 copies.

LITTELL'S LIVING AGE. E. Littell & Co., Boston, Mass.

This weekly publication maintains its interest and deserves the support it receives. The prevailing topics of literary interest are in it, the rarest gems of poetry, and the more exciting subjects of political contest. It is a true exponent of the literature, the sound sense, and sober thought of the day, and as such should be on the table of every well informed man.

GRAHAM'S MAGAZINE. George R. Graham, Philadelphia.

The Nov. No. of this companion of the library and parlor is on our table, in advance of its date. We notice a finely illustrated and well written article on Rivers, by THOS. MILNER, who has of late contributed several valuable papers to this publication. The original matter is uniformly of more than ordinary merit, and its selections are well chosen.

EGG PHYSIOLOGY.—In answer to the inquiry, whether cocks are necessary in the egg business for market only, the Granite Farmer states the following circumstance: Three canaries, with males, laid about 20 eggs each during summer, they not being allowed to hatch them. A female bird in the vicinity, "a genuine lone bird that has mourned her mate which she never had," laid about the same number of eggs during the same time.

Diseases of Plants.

The Farmer's Magazine for October, contains an article on this subject, from which we condense the following:

All we really know is this: Plants are, the more we grow them, and the greater the produce of them, more and more liable to disease. The principle is one somewhat difficult to understand, to those who have narrow views of the operations of nature; but to those who look at things more as they are, it is a part of a great plan—a link in the chain of causation, perfectly explicable. An analogy to diseases in plants may be found in a crowded city. It is always a conglomeration of disease and death. In prisons, hospitals and penitentiaries, a disease trifling in an isolated home, may become dangerous and run into epidemics; to the crowding of luxuriant plants and high cultivation renders them liable to disease.

The potato is a most striking case in point. It is by cultivation carried away from its natural wildness, till it becomes almost another kind of plant. In Peru, its native country, it is found not more than three inches high, with large flowers, and tubers the size of a hazel nut. Now, by cultivation, the flowers become insignificant; the stem increases in size, and the tubers enlarged to a weight of sometimes three or four pounds, and instead of a straggling plant here and there, thousands of acres are covered with the plant, to the exclusion of almost every other. Nature revolts at this overpeopling with rank potatoes. Some weakness of the plants; some atmospheric cause dissolves the vital power, which holds the chemical particles together; and we have dissolution and decay irremediable.

Take the vine, carried by man from its native wildness, clustered together in fields, nay in forests, excited by manure, protected by glass, pruned by science, so as to increase the juicy fruit nearly six times; it shows revolt by this forcing, and a vast disease has destroyed the fruit, and threatens to be the death of the vines themselves. It is the cholera of the crowded vinery, as much as the plague ever visited Hull, or Leeds, or London.

A disease is now very prevalent in turneps. On the best turnep soils, with the highest of farming, and with plants absolutely the most promising, a flag in the leaves is discovered some sunny day, and by and bye the plants wither and die; they are first a mass of thickened and carbuncled roots, and then an accumulation of disgusting corruption, while weeds, triumphing over this death of the race which had displaced them, seem to run riot on the death of the turnep.

What we wish to urge is, that all investigations be carried on in a large spirit, not looking merely at a particular crop attacked with a peculiar disease, but inquire if all our cultivated crops are not more liable to some disease than they were. Whether it is a cause or effect we know not, but we mean that this spirit should animate those who seek for information.

To transplant evergreens, one point attended to will result in success—neglected, in failure—this is, removing plenty of earth with the roots.

Banking round young trees a foot high in autumn is an infallible remedy against mice.

Mr. Vail's Cattle Sale.

The public sale of Mr. VAIL's fine herd of Durham cattle, took place at his farm near Troy, on the 13th of last month. Though the attendance was not large, the bidding was more spirited, and the prices averaged much higher than at any previous sale ever held in the State, as will be seen by the annexed list:

1. Yarm Lass, 3½ years, Messrs. Reber & Co., Ohio,	\$670
2. Yorkshire Countess, 2½ years, do. do.	580
3. Yorkshire Countess 2nd, calf, Capt. A. Root, Ohio,	315
4. Hilpa 1st, 12 years, Messrs. Reber & Co., Ohio,	320
5. Hilpa 2nd, 4 years, Gen. Geo. Cadwallader, Phil.,	260
6. Hilpa 3rd, 2 years, do. do.	360
7. Hilpa 5th, calf, Capt. A. Root, Ohio,	260
8. Lady Barrington 5th, 4 years, Gen. Geo. Cadwallader, Phil.,	320
9. Lady Barrington 7th, 1 year, H. & R. M. Watts, M. P., Canada,	240
10. Butter Cup 2nd, 5 years, Mr. O'Hara, Madison co., N. Y.,	200
11. Betty, 7 years, Gen. Cadwallader, Phil.,	150
12. Betty 2nd, 4 years, Mr. D. A. Baker, Ohio,	110
13. Betty 3d, 3 years, calf, Gen. Geo. Cadwallader, Phil.,	75
14. Bellflower, 13 years, T. S. Halton, Vt.,	75
15. Laura 2nd, 3½ years, Mr. H. Parsons, Canada,	125
16. Laura 3d, calf, Richard H. Dulany, Esq., (from the South,)	100
17. Cherry, 7 years, Wm. K. Gaston, Esq., New-Jersey,	100
18. Esterville 3d, 6 years, L. Spencer, Esq., Westchester, N. Y.,	610
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25. Eunice 5th, ½ year, Harvey Ingersoll, Esq., Phil.,	120
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NOTES FOR THE MONTH.

Our Arrangements for 1853.

It will be seen, by the prospectus on the last page of this number, that we propose hereafter, in connection with "THE CULTIVATOR," to issue a weekly journal, to be called "THE COUNTRY GENTLEMAN—A Journal for the Farm, the Garden, and the Fireside." Believing that such a journal as we intend this shall be, would prove a valuable auxiliary in the cause of agricultural improvement, and the promotion of rural art generally, we have for some years had the project in contemplation, but the time has not before arrived, when we could see our way clearly to carry it into successful operation. Our preparations are now made, and with confidence we invite the attention of the public to our plan, as explained in the Prospectus. We hope to make THE COUNTRY GENTLEMAN, such a journal as will meet the wants and approval of our rural population generally. A sample number is now in press, and will be sent to all who desire it.

The Cultivator for 1853.

The Price Reduced to Fifty Cents a Year.

As the Cultivator will hereafter be issued in connection with our proposed weekly paper, we are enabled to reduce the price to FIFTY CENTS a year to single subscribers, and to THIRTY-SEVEN AND A HALF CENTS to clubs—while at the same time, we shall have it in our power to give increased interest and value to its pages; from the fact, that its contents will be made up, mainly, of the choicest articles which appear in the several Nos. of the weekly paper during the month. There will be no change in its character. Its object—"TO IMPROVE THE SOIL AND THE MIND"—will be the same as heretofore.

The only variation will be in the price. This change will procure for it, we have reason to believe, a greatly extended circulation, and consequent increase of usefulness.

FRIENDS!—Our plans for next year, are before you. Will you examine them, and if they meet your approbation, as we trust they will, give us your hearty and energetic co-operation in carrying them into successful execution?

Instead of an Almanac for subscribers, and a list of premiums for agents, we have reduced the price of THE CULTIVATOR, a measure which we doubt not will meet the approbation of our friends, as well as greatly promote the circulation of our monthly journal.

COL. HODGE.—In a notice in our Sept. No., of the sale of the Buffalo Nursery, we stated that Col. Hodge had "retired to his fine farm at Peach Haven;" but Col. H. informs us that this is a mistake. He says—"I would have my friends understand that my residence remains unchanged, and where I have spent some forty years, (at Buffalo) and where I hope to spend the remainder of my days. At Peach Haven, I am planting out large orchards of the peach, pear, apple, &c., and in time I hope to make it a pleasant resort for myself and horticultural friends."

"J. R. P."—If your remarks "on the improvement of our markets for agricultural products," are to touch upon political questions, they will not answer for our pages. We desire to avoid all discussions of questions which are mingled with the partizan conflicts of the day. If free from this objection, we shall be glad to give them a place.

We learn that J. C. TIFFANY, Esq., of Coxsackie, has sold his Ayrshire bull, "Dandy," to which was awarded the first prize in its class at the State Fair at Albany in 1850, to CHARLES CALVERT, Esq., of Maryland.

THE WORLD'S FAIR—Once More.—A circular, which has been extensively copied in the newspapers, gives notice that an Exhibition of Industry of all Nations will be opened in the city of New York, on the 2d of May, 1853. A large palace is now in process of erection on Reservoir Square, for the purpose of the display. The association has established an agency in London, and invites correspondence from those interested. All communications, or inquiries addressed to "The Secretary of the Association for the Exhibition of the Industry of all Nations," at New-York, will receive attention. The prospects of this adventure, which were for a time rather gloomy, begin to brighten a little.

UNIVERSITY OF ALBANY.—The lectures before the law department of this Institution, are announced to commence on the third Tuesday of Dec. next. The Hon. AMASA J. PARKER, Hon. IRA HARRIS and Prof. AMOS DEAN have this department in charge, and their success with the class of last winter, affords the highest promise for the future. We regret to say that no arrangements have been made for a course of lectures on Natural Science and Agricultural Chemistry, and that this most important department is apparently defunct. The loss of Prof. NORTON, and the failure to obtain an appropriation from the Legislature at its last session, have placed a sad check on this enterprise. Still we are not without hope that from the ashes of this, a more enduring institution will sooner or later spring.

A LADIES' RIDING MATCH.—A truly novel feature was introduced at the late fair of the Muskingum Co. (O.) Ag. Society. Three prizes of silver ware, valued at \$50, \$25, and \$15, were offered to the ladies for the best exhibition of horsemanship. Nine ladies appeared on the arena, and of course all rode well, but the three most adroit, skillful and graceful equestrians received the prizes. The judges were necessarily gentlemen, for one lady would hardly award a premium for grace to another. Ohio must take the lead this year. We suppose some of these ladies who ride on horseback and breathe the fresh air, will write a book equal to Uncle Tom's Cabin, some day.

COVERING WHEAT WITH STRAW.—The Prairie Farmer details an experiment with covering wheat with straw, to prevent winter killing. The straw is spread about the thickness of flax when subject to rotting. This is stated to preserve the moisture of the soil, and protect the crop from the dry freezing weather towards the close of winter, so destructive to wheat. The straw quickly settles close to the ground, and the wheat springs up through

it. A ridge of land on which the wheat had been uniformly killed, was treated in this way, and excellent crops of wheat the invariable result.

REAPING MACHINES.—The English agricultural journals abound in conflicting accounts respecting the merits of the American machines. The Gardener's and Farmer's Journal, speaking of the most important trials, says—"The first was at Tiptree, under the auspices of the jury of the Great Exhibition. There McCormick's machine carried the medal. A second trial followed at Middlesboro', and the jury unanimously reversed the decision and awarded it to Hussey. The Yorkshire Ag. Society tried it at Sheffield, before highly competent judges, and again reversed it, giving the prize to McCormick. The Driffield Farmer's Club had another trial, in a district, of all others, favorable to the reaping machine, and again confirmed the decision in favor of McCormick. The Highland Society threw out both, and decided in favor of one of Bell's; while the Cleveland Ag. Soc., after a very patient trial, gave again their verdict at Guisboro' in favor of Hussey's machine. Who can yet say which of them is the best?"

A NEW LAMP.—The New England Farmer for Oct., contains an article from Dr. SIEDHOF, a German Professor, announcing the invention of a lamp, for which a patent has just been issued. The inventor claims the following advantages. It has no machinery about it, any wick can be used,—it consumes exactly as much oil in a given time as a glass lamp,—it produces two and two-thirds as much light as the glass lamp. The light burns equally well till the oil is consumed—it burns the poorest oil as well as the best—it can be made in any form, used with any shades and any number of burners—and it is very good looking. Should this lamp prove upon experiment to be all that is claimed for it, it will come into extensive use.

THE CARBON ENGINE.—The Plough, Loom and Anvil for Oct., gives an account of the invention of new motive power by Prof. SALMON, who has after long experiment and discouraging hindrances perfected, as he thinks, the carbon engine. The power is obtained by the generation and expansion, by heat of carbonic acid gas. Common whiting, sulphuric acid, and water are used in generating this gas, and the boiler in which these components are held is similar in shape and size to a common bomb shell. A small furnace not larger than a hat, with a handful of ignited charcoal, furnishes the heat requisite for driving an engine of twenty-five horse power. This engine with a heat of 80° gives greater power than the steam engine with 452°, a heat which no engine can bear. The expense of driving a boat from Cincinnati to New-Orleans with steam is stated to be over \$1,000; with a carbon engine, it would be only \$5. Farther demonstrations soon.

WASHING CLOTHES WHOLESALE.—The Ohio Cultivator informs us that at the great wash-houses in London, (connected with the public baths) there are at one establishment 84 apartments, each furnished with tubs, fitted with cocks for hot, cold, and waste water, baskets, and a steam-boiling apparatus. Mangles are at hand, and a

drying machine supplied with hot air. A smart woman will do the washing, drying, and ironing for her family [of how many persons?] in two hours, at a cost of two pence. To stimulate her, she pays double after the second hour. Over 1,000 poor women wash here weekly. The receipts exceed the expenditures.

SILK AND BEET SUGAR.—According to the U. S. census, the quantity of silk produced in this country in 1850, was less than a fourth the amount of 1840—a surprising decrease, and only accounted for by the fact, long since established by many, that silk culture here is liable to too many disasters and drawbacks for carrying on profitably. Such pursuits will find their own level. We also observe that the quantity of beet sugar is gradually diminishing in France. Its unsuitness for manufacture in this country was established many years ago, by the fact that beets must be raised at about six cents per bushel, to pay expenses, saying nothing about profits, while they would be worth far more than this for cattle food, at the present prices of other food, and of butter, cheese, and beef.

TOBACCO.—We observe that the amount of tobacco raised in the United States has decreased about ten per cent in the last ten years. So says the census. However profitable it may be to individuals, we cannot but strongly doubt whether the large use of this vegetable contributes to national prosperity—more smoke than substance. We are much pleased to learn that the quantity of Indian corn has increased in the same period about 60 per cent, wool 48 per cent, and market garden products about 100 per cent. Tastes, we know, differ greatly; but for us, we decidedly prefer a good, well ripened, rose-cored, Imperial watermelon, "to take," as the doctors say,—to a concrete dose of tobacco juice.

PLASTER ON WHEAT.—An experiment is stated in the Michigan Farmer, by Isaac Elliott, performed on "sandy and gravelly loam," by turning under a five years sod of clover chiefly, for wheat. The plowing was deep, and after thorough harrowing the wheat was sown and grew well in autumn. The spring was cold, and the young wheat turned yellow. Towards the close of four mo., (April) 80 lbs. of plaster were sown upon it, "and in a few days it turned a very dark green color." It yielded 28 bushels per acre, except on small portions not plastered, where the crop was about 18 bushels per acre.

GUENON'S MODE OF EXAMINING COWS.—C. Harvey, of Delaware Co., Pa., says that this mode of determining the milking properties at a glance, and even in a young heifer, is extensively adopted in that region, and is perfectly reliable. Several dairymen got hold of it about the same time, and ascertaining its correctness, were very careful to conceal it from each other. One farmer selected an excellent herd of cows by buying them of drovers when two-year heifers.

Certificate.

We, the undersigned, certify that we have sold to Mr. S. W. Jewett, of Vermont, America, of pure blood Merino Ewes, of our own raising, much more in number, and for a much greater value in money, than to all other American purchasers.

GUERIN.
CUGNOT.
VICTOR GILBERT.

Poissy, France, April 7, 1852.

Fruit and Shade Trees.

FOR sale at *Mount Ida Nursery, Troy, N. Y.*, a choice variety of Fruit Trees, comprising Apples, Pears, Peaches, Plums, and Cherries, of the most approved kinds.

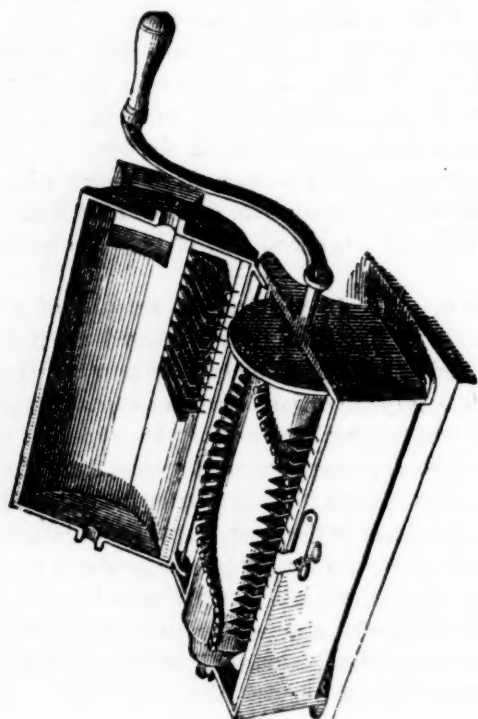
Currents, Gooseberries, Raspberries, Grapevines and Strawberries, of the choicest varieties.

Also a good variety of shade trees, consisting of Scotch Elm, English Sycamore, Linden, Horse Chestnut, Mountain Ash, Larch, Oak, &c. Evergreen, Privet, and Buckthorn, for Hedges.

Rhubarb and Asparagus Plants, &c. Catalogues and other information can be had of the Nurseryman. **JOSEPH CALDWELL.**
Troy, Nov. 1, 1852—1t.

A Farmer and his Wife

WANTED, to take charge of a Dairy Farm in the town of Rye. Apply to **JOHN C. JAY**, Rye, Westchester Co., N. Y.
Nov. 1, 1852—3t.

**Sausage Cutter.**

THE general configuration of this machine will be understood from the engraving above. It will cut one hundred lbs. of meat per hour, and the knives are so arranged as to have a continuous action. The machine, as represented above, is open, but when shut, forms an inner cylinder through which runs the cylinder of pegs, operating against a spiral of knives. The meat is made finer or coarser, according to the rapidity with which it is fed. Price, wood frames, with one set of knives, \$5—with two set of knives, \$8. Iron frame, \$4. For sale by **LONGETT & GRIFFING,**
Nov. 1—3t. No. 25 Cliff Street, New-York.

Agricultural Implements.

STRAW AND STALK CUTTERS—of all patterns.
CORN MILLS—both of Iron and Burr Stone.
CORN AND COB CRUSHERS—of Beals', Nichols' and Sinclair's make.
ROAD SCRAPERS—of several patterns.
FANNING MILLS—of all the best makers.
SAUSAGE STUFFERS AND CUTTERS—of all patterns.
VEGETABLE OR ROOT CUTTERS—of approved kinds.
CORN SHELLERS—for hand and horse power.
VEGETABLE BOILERS—of Mott's and Bent's patterns.
GARDEN AND WHEEL BARROWS—of iron and wood.
HAY AND COTTON PRESSES—Bullock's patent.
BRICK MACHINES—of Hall's and other makers.
WAGONS AND CARTS.
PLOWS—of Prouty & Mears, Centre Draft, and Rich's Iron Beam.
PLOWS—Eagle, Massachusetts make, and Minor & Hortons.
For sale at the State Agricultural Warehouse, No. 25 Cliff-Street, New-York. Nov. 1—1t.

Superphosphate of Lime.

THE genuine article, manufactured by C. Deburg, in bags of 150 pounds each. The subscribers have made a contract for a large quantity, and are now prepared to supply any demand. Farmers and gardeners would do well to call on us before purchasing elsewhere, as we are now able to sell for a less price than heretofore offered. Every bag is branded C. Deburg, Extra No. 1.
Nov. 1—1t. **LONGETT & GRIFFING,**
State Agricultural Warehouse, No. 25 Cliff Street, New-York.

New-York Agricultural Warehouse and Seed Store.

WE have constantly on hand, the most extensive assortment of the best and latest improved Agricultural and Horticultural Implements, and Field and Garden Seeds, ever offered for sale in the United States, embracing every Implement, Machine, or Seed desirable for the Planter, Farmer, or Gardener. Also Guano, Bone Dust, Poudrette, Plaster of Paris, and Super Phosphate of Lime. Durham, and other improved breeds of Cattle and Sheep.

A. B. ALLEN & CO.
Nov. 1, 1852—1t. 189 and 191 Water St., New-York.

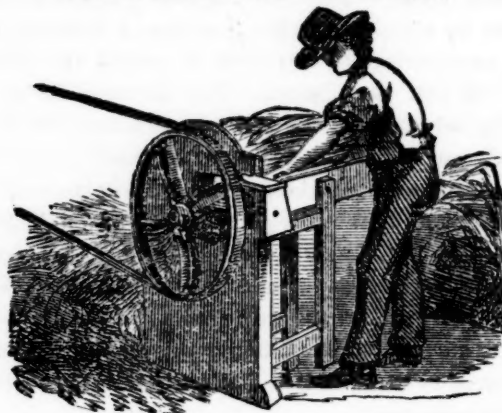
Important to Farmers.

IT is generally conceded by all intelligent Farmers, that cutting the food for cattle will save about from 25 to 30 per cent. Bertholf's Oblique Rotary Corn Stalk, Hay and Straw Cutter, is conceded by all that have used them, to be far superior to any other, as it destroys all hard substances in the stalk, leaving it soft and easily eaten. It turns very easy, and is not liable to get out of order, and with care will last an age. It has been awarded four First Premiums and a Silver Medal, by the American Institute. For further particulars, address, (post-paid,) the Patentee, **H. W. BERTHOLF,** Sugar Loaf, Orange County, N. Y., or **LONGETT & GRIFFING,** 25 Cliff St., New-York, who are agents. Patent Rights for sale. Nov. 1—3t.

New-York State Agricultural Works.

WHEELER, MELICK & CO., will at the shortest notice, fill all orders for Machines made by them, among which are their Double and Single Horse Powers, and Overshot Threshers and Separators; Combined Threshers and Winnowers; Circular Saw Mills; Clover-Hullers; Horse Powers geared for churning; Feed Cutters for Horse Power, &c. &c.

The scarcity of fodder which prevails in many parts of the country, in consequence of the present dry season, induces them to call the especial attention of farmers to their

Wheeler's Pennsylvania Feed Cutter,

As being peculiarly adapted to this emergency.

This Machine is made expressly for Horse Power use and is very strong and substantial. In Pennsylvania it is used chiefly for cutting corn stalks, although it cuts straw and hay equally well, and will cut from half inch to two inches in length. It is simple and compact, having four plain, straight knives, which are attached in such a manner that they may be taken off and ground, and then replaced, without producing the least variation. All the wearing parts are made so that they can be adjusted by means of screws, with a common wrench, and any person can keep the Machine in the most perfect order. In cutting corn stalks they are crushed between strong iron feed rolls, and being cut short, the coarse stalks are split into small pieces, which reduces the whole to very fine feed. They are capable, with one horse, of cutting 150 bushels per hour. Price \$22.

WHEELER, MELICK & CO.,
Albany, Nov. 1—1t. Corner of Liberty and Hamilton Sts.

THE OHIO FARMER, AND MECHANIC'S ASSISTANT,

Edited and Published in Cleveland Ohio, by Thomas Brown.

A FAMILY Newspaper, devoted to Agriculture, Horticulture, Mechanic Arts, Literature Domestic Economy, Social Improvement, and General Intelligence.

The Wholesale and Retail Prices of all the leading articles bought and sold in the **NEW-YORK, CLEVELAND, CINCINNATI** and **PITTSBURGH** Markets, are also accurately reported each week.

The **FARMER** is one of the largest, and is acknowledged by all who are acquainted with it, to be one of the best Agricultural Newspapers in the United States.

Sample Copies will be sent to any part of the United States, if the request be made of the Publisher, by letter, post-paid.

TERMS.—Single Subscribers \$2.00. Clubs of two or more, \$1.50 each—invariably in advance.

A limited number of advertisements will be inserted in the **Farmer** at the rate of \$1.00 per square, (ten lines or less,) for the first insertion, and fifty cents for each subsequent insertion.

THOS. BROWN, Publisher,
Merchant's Exchange, Cleveland, Ohio.
Cleveland, Nov. 1, 1852—3t

Superphosphate of Lime.

THE GENUINE ARTICLE, manufactured by Professor Mapes, also C. Deburg's No. 1—with printed directions for their use, in bags of 150 pounds each. Farmers and Gardeners will do well to apply to us, as we keep none but the *genuine unadulterated* article.

A. B. ALLEN & CO., 189 and 191,
Water-st., New-York.

Oct. 1—1st.

Super Phosphate of Lime,

FOR farming purposes, put up in bags of 150 lbs. each. For sale by
JOHN MAYHER & CO.
Sept. 1—1st. No. 197 Water Street, New-York.

United States Agricultural Warehouse and Seed Store,
No. 197 Water Street, New-York.

THE subscribers solicit the attention of the public to the large and varied assortment of Agricultural and Horticultural Implements, Field and Garden Seeds which they have constantly on hand, and offer for sale at the lowest prices and on the best terms.

Aug. 1—1st. JOHN MAYHER & CO.

Hay and Straw Cutters,

OF all styles and sizes, for cutting Hay, Straw, or Cornstalks; for sale at the United States Agricultural Warehouse and Seed Store, No. 197 Water Street, N. Y. JOHN MAYHER & CO.
Sept. 1—1st.

Seed Wheat.

GOLDEN Australian, Mediterranean, White Flint, Canada, Black Sea, Soul's, in bags or barrels. For sale at the United States Agricultural Warehouse and Seed Store, No. 197 Water Street, New-York. JOHN MAYHER & CO.
Sept. 1—1st.

EMERY & CO.'s**Improved Horse Power. Thrashers and Separators.**

THE undersigned have been appointed sole agents for the sale of Emery's new patent Improved Horse Power, Thrashers and Separators in the city of New-York. The State Agricultural Warehouse is the only Depot where this superior power can be had. As many powers are represented as Emery's patent, to avoid impositions, be careful to observe that the name of Emery & Co. is cast in full on every link of chain and the wheel hub.

LONGETT & GRIFFING.
25 Cliff street, New-York.

July 1—1st.

Horse Powers, Thrashers and Separators.**Endless Chain Powers**

OF all kinds ever made, for one and two horses, also cast iron Sweep Powers, for one to four horses. Thrashers and Separators to match the above. JOHN MAYHER & CO.,
United States Agricultural Warehouse and Seed Store,
Sept. 1—1st. No. 197 Water Street, New-York.

Trees, Plants and Shrubs

SHOULD be transplanted South in the fall. Orders supplied from the best nurseries, at their prices. A. B. ALLEN & CO.,
Oct. 1, 1852—1st. 189 and 191 Water st., New-York.

Fruit and Ornamental Trees.

THE subscribers would beg leave to give notice to dealers and others purchasing Pear Trees, that their stock is remarkably well grown this season, and will be very strong and fine for the fall sales, and is as extensive a collection of saleable trees as can be found at any other nursery in the county. The collection grown on quince stock is also very fine.

The stock of Apple Trees will also be very large this fall, in lots to suit purchasers.

Plums—a general assortment of most of the leading kinds. Cherries, Apricots, Peaches, Grapevines, Gooseberries, Currants, with other small Fruits, at the lowest market prices.

Ornamental Trees, being also grown extensively, can be furnished by the hundred at very reasonable rates—European Linden, Mountain Ash, Scotch Elms, English Elms, Horse Chestnuts, with a good collection of Roses, &c. Catalogues will be forwarded to all applicants.

WILSON, THORBURN & TELLER,
Oct. 1—2d. Nurserymen, No. 492 Broadway, Albany.

ANDRE LEROY, Nurseryman at Angers, France,

HONORARY and Corresponding member of the principal Horticultural Societies of the United States, and of Europe, begs leave to inform his friends, and all the nurserymen of the Union in general, that he has made large preparations, and has now on hand a considerable stock of all the finest Evergreen Seedlings, Roses, Fruit and Ornamental Trees, &c., &c., most suitable for the American markets. The experience of several years of putting up large orders for the United States, enables him to flatter himself that he has now all the necessary knowledge to give full satisfaction, and to assure the delivery in good order, of all the trees, &c., ordered.

He also begs to inform all nurserymen who have not already received the Supplement for 1852, to his Catalogue of 1851, that it can be obtained free of any charge, at his agent's office, M. Ed. Bossange, 138 Pearl-Street, New-York, who will also attend to forward all orders sent to him, and to pass through the custom house, and to reship all goods ordered, without any delay, and with the greatest care.

Address M. ANDRE LEROY, Angers, France,
Care of M. Ed. BOSSANGE, 138 Pearl-Street, N. Y. Oct. 1—3d.

Albany Drain Tile Works.

No 60 Lancaster Street—West of Medical College, Albany.

THE subscriber has now on hand, Draining Tile of the following descriptions. Prices reduced.

HORSE SHOE TILE.

5½ inch Rise, or 4½ inch Calibre,.....	\$18 00 pr. 1000.
4½ " " 3½ "	15 00 "
3½ " " 2½ "	12 00 "

SOLE TILE.

4½ inch Rise, or 3½ inch Calibre,.....	\$18 00 pr. 1000.
3½ " " 2½ "	12 00 "

These Tile are over one foot in length, and are so formed as to admit water at every joint, draining land from 12 to 20 feet each side of the drain—being the cheapest and most durable article used.

Tile sufficiently large for drains around dwellings, at \$4 and \$8 pr. 100 pieces. Orders from a distance will receive prompt attention.
Albany, April 1, 1852—1st. JOHN GOTT.

New and Important Insurance.**Northern N. York Live Stock Ins. Co., Plattsburgh, N. Y.**

INCORPORATED by the Legislature of the State of New-York, July, 1851. Horses, Cattle, and all kinds of Live Stock insured against Death, by the combined risks of Fire, Water, Accidents, Diseases, &c CAPITAL, \$50,000.

GEORGE MOORE, Plattsburgh, Sec'y.

I. C. MIX, Fort Ann, Gen. Agent.

October 13, 1851.

This company are now organized and ready to receive applications for insurance. It is confidently believed that the owners of valuable animals will avail themselves of the advantages offered by this mode of protection. If fire, life and marine insurances are proper and expedient, so is live stock insurance: the reasons for insurance are equally applicable to all.

For terms please apply to Company's Agents.
Plattsburgh, July 1—1st.

For Sale.

ONE of the most desirable farms in the Chenango Valley, 2 miles from the village of Oxford, containing 220 acres—river flat—grain land, pasture, woodland, and orcharding. A large and convenient dwelling house, two large barns, with sheds and out-houses—watered by the Chenango River—a creek on which there is a saw mill, and by never failing springs. On it are more than 700 rods of stone wall. Persons wishing to purchase are desired to look at the crops and stock on the farm. Enquire of JOHN TRACY, Oxford, N. Y.
Oct. 1, 1852—3d.

FOR SALE.

50 EWES and a few Bucks from my flock, the wool of which has sold, for the last three years, for forty-seven cents a pound, and averaged from three and one half to three and three-fourth pounds per head.

For further particulars, address the subscriber at his residence, Canaan Centre, Columbia county, N. Y., or BLANCHARD and BURT of the Wood Depot, Kinderhook. DANIEL S. CURTIS.
Canaan Centre, Aug. 1, 1852—1st.

Valuable Farm for Sale.

THE subscriber offers for sale four hundred and fifty acres of land, being a part of his homestead, and comprising two hundred acres of as desirable land as any in Addison county—lying on the main road four miles north of Vergennes on the border of Lake Champlain, and one mile from the Railroad Station. It is under good cultivation, and furnished with commodious buildings. The remaining 250 acres is wood land; a portion of it covered with a heavy growth of hemlock and other valuable timber, and the remainder with the best quality of wood for fuel. The property will be sold together or in parcels. Postpaid inquiries promptly responded to.

ROW'D T. ROBINSON,
Aug. 1—1st. Ferrisburgh, Addison co., Vt.

A First Class Dairy Farm for Sale.

MY farm of 320 acres, four miles south of the village of Oxford, Chenango county, N. Y., and near the Chenango Canal. 250 acres are under high cultivation, durably fenced, and well and permanently watered. The remainder is well timbered. It has a large two story mansion, five large barns, and sheds and out houses, in good repair. The soil is deep and of superior quality. It is admirably adapted for a dairy, or for grazing and grain; has a fine orchard of choice grafted fruit; and for profit, health, and beauty of location, cannot be surpassed. It is fully supplied with farming tools, and about fifty head of cows and young stock, all or any of which may be had with the farm. The New-York and Erie Railroad furnishes ample facilities for forwarding produce to the New-York market at all seasons, and the route of the contemplated Albany and Binghamton railway, passes within a few miles of the farm. The farm can be conveniently divided. Price low—title perfect. Terms most easy.

G. VAN DER LYN,
May 1, 1852—1st. Oxford, N. Y.

THE CULTIVATOR

Is published on the first of each month, at Albany, N. Y., by

LUTHER TUCKER, PROPRIETOR.

\$1 per Ann.—7 Copies for \$5—15 for \$10.

OUR ARRANGEMENTS FOR 1853.

HAVING, since the death of Mr. Downing, the lamented Editor of "THE HORTICULTURIST," disposed of that work, the Publisher of "THE CULTIVATOR" has determined to carry into effect a design he has for some years had in contemplation, of establishing a WEEKLY JOURNAL, in connection with "The Cultivator," to be devoted to the cause of Agriculture and the Rural Arts generally. In pursuance of this plan, he has issued a sample number of a weekly publication, the regular issue of which will be commenced with the new year, to be called the

The Country Gentleman.

A WEEKLY JOURNAL FOR THE FARM, THE GARDEN, AND THE FIRESIDE.

The scope of THE COUNTRY GENTLEMAN will embrace:

I. THE FARM.—Including—1. The Principles of Cultivation, the Preparation of the Soil and the most approved methods of Culture of all the Crops grown in this country.—2. The Manufacture, Preservation, and Application of Manures—3. The Description and Illustrative Drawings of all Implements and Machines requisite for the Farmer's use.—4. The Breeding, Rearing and Management of all the Domestic Animals, with Engravings of the different breeds.

II. THE GARDEN AND THE ORCHARD.—1. Descriptions will be given of all the FRUITS, of the different varieties, suited to the various sections of the country, together with the best modes of Propagation and Cultivation.—2. Selects Lists, and Descriptions of FLOWERS, SHRUBS and TREES, suitable for large and small places, with Directions for their Culture.—3. Special attention will be given to the products of the KITCHEN GARDEN, a department hitherto too much neglected, as there are

many plants highly desirable for the table, which have not come into general culture.

III. THE FIRESIDE.—This department will be of a miscellaneous character, embracing every variety of instructive and entertaining subjects, such as Historical, Geographical and Biographical Notes, Literature, Natural Science, Tales, Poetry, &c., consisting of original articles and selections of a high order.

IV. RECORD OF THE TIMES.—Under this head will be given a concise and systematic abstract of the News of the Week, embracing briefly every thing of general interest to country residents.

V. PRODUCE MARKET.—Great efforts will be made to render this department full and complete, and particularly valuable to the Farmer and Produce Dealer. A careful synopsis of the prices of Produce, Wool, Live Stock, &c., at the leading markets, will be given, as well as the condition of crops, &c.

It will be the aim of the publisher to make the paper attractive and elegant in its typography, choice and select in its contents—to make it indispensable to the Farmer, and desirable to every one who has a rod of ground to cultivate, or a home to beautify—and by devoting its columns to IMPROVEMENT IN AGRICULTURE, TO ELEVATION IN CHARACTER, AND REFINEMENT IN TASTE, to render THE COUNTRY GENTLEMAN, the standard in its sphere.

TERMS.—It will be printed on good paper, in the best style, and be liberally illustrated by Portraits of Domestic Animals, Views of Buildings, Agricultural Implements, &c., &c. Each number will contain 12 handsome quarto pages, from which all advertisements will be excluded, none being inserted except on the cover, which will be devoted to the interests of our advertising friends.

The price of the paper will be \$2.00 a year, in advance—if not paid in advance, \$2.50.

LUTHER TUCKER.

THE CULTIVATOR FOR 1853.

THE PRICE REDUCED TO FIFTY CENTS A YEAR.

As the proprietor will next year issue "THE CULTIVATOR" in connection with the weekly Journal announced above, he will be enabled to reduce its price to FIFTY CENTS A YEAR, while he will have it in his power to give increased interest and value to its pages, from the fact that its contents will consist of the choicest articles which appear in the weekly paper during the month. There will be no change in its character. Its object—"TO IMPROVE THE SOIL AND THE MIND"—will be the same as heretofore. The only alteration will be in the price—a change which will procure for it, he has reason to believe, a greatly extended circulation, and consequent increase of usefulness. Certainly this will be the effect, if those who have heretofore so kindly extended to it their aid, shall act with their accustomed energy in procuring subscriptions for 1853.

In calling upon our friends to renew their efforts in behalf of the next year's Cultivator, we beg to assure them, that, while its price is so greatly reduced, we intend to

Albany, N. Y. Nov., 1852.

make it equal in value to any volume that has preceded it; and we solicit for it, not only the good will of its friends, but their energetic efforts to greatly extend its circulation. The price hereafter, will be as follows:

Single Copy, Fifty Cents—Eight Copies \$3—any larger number at the same rate. All subscriptions must commence with the Jan. No., and the payments must in all cases accompany the order for the paper.

Will our AGENTS, to whom we are already under so many obligations, take hold of the work in earnest? Many have already assured us, that with this reduction of price, they could more than double their subscriptions for next year, and we trust that this will prove true with all our Agents.

Every subscriber to our current volume, as well as all POSTMASTERS, and all others interested in the progress of Agricultural Improvement, are most respectfully invited to act as agents for THE CULTIVATOR.

LUTHER TUCKER.